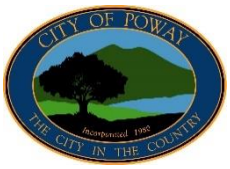
DRAFT

The Farm in Poway EIR

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
2050 RTP/SCS	2050 Regional Transportation Plan
A/V	audio-visual
AB	Assembly Bill
ACOE	U.S. Army Corps of Engineers
ADA	Americans with Disabilities Act
ADT	average daily traffic
AICUZ	Air Installations Compatible Use Zone
ATCM	Airborne Toxic Control Measure
Berglund WTP	Lester J. Berglund Water Treatment Plant
BMP	best management practice
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards
CALINE4	California LINE Source Dispersion Model
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Corrective Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERT	Community Emergency Response Team
CFC	California Fire Code
CGS	California Geological Survey
CH_4	methane
CHHSL	California Human Health Screening Level
Clean Water Act	federal Water Pollution Control Act Amendments of 1972
CNEL	community noise equivalent level
CNMP	Construction Noise Management Plan
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources

Acronym/Abbreviation	Definition
CRPR	California Rare Plant Rank
dB	decibel
dBA	A-weighted decibel
DEH	County of San Diego Department of Environmental Health
Delta	Sacramento–San Joaquin River Delta
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act of 2007
EMS	Emergency Medical Services
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ERR	Escondido Resource Recovery
ESA	Endangered Species Act
EV	electric vehicle
EVA	emergency vehicle access
FEMA	Federal Emergency Management Agency
FHSZ	fire hazard severity zone
FMP	Fuels Management Plan
GHG	greenhouse gas
gpm	gallons per minute
GWP	global warming potential
HARRF	Hale Avenue Resource Recovery Facility
HCFC	hydrochlorofluorocarbon
HERO	Human and Ecological Risk Office
HFC	hydrofluorocarbon
HRA	health risk assessment
HVAC	heating, ventilation, and air-conditioning
I-15	Interstate 15
IFC	International Fire Code
ips	inches per second
JRMP	Jurisdictional Runoff Management Program
KOP	Key Observation Point
kWh	kilowatt-hours
L_{dn}	day–night average noise level
L_{eq}	equivalent noise level over a given period
LLG	Linscott, Law & Greenspan
L_{max}	greatest sound level measured during a designated time interval or event
L_n	statistical sound level
LOS	level of service
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MMT CO_2e	million metric tons of CO_2 equivalent
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MT	metric tons

Acronym/Abbreviation	Definition
MTBE	methyl tertiary butyl ether
MT CO_2e	metric tons of CO_2 equivalent
MTS	San Diego Metropolitan Transit System
MWD	Metropolitan Water District of Southern California
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCWRP	North City Water Reclamation Plant
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OPR	Governor's Office of Planning and Research
OR-RM	Open Space – Resource Management
OS-C	Open Space – Conservation
OSHA	Occupational Safety and Health Administration
OS-R	Open Space – Recreation
P-C	Production-Consumption
PC	Planned Community
PCBs	polychlorinated biphenyls
PDF	project design feature
PFC	perfluorocarbon
PFD	City of Poway Fire Department
PLWTP	Point Loma Wastewater Treatment Plant
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
Poway Subarea HCP/NCCP	Poway Subarea Habitat Conservation Plan/Natural Community Conservation Plan
ppm	parts per million
PPV	peak particle velocity
PRD	Planned Residential Development
PUSD	Poway Unified School District
PVGB	Poway Valley Groundwater Basin
RAQS	Regional Air Quality Strategy
R-C	Residential – Cottage
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery
Regional Plan	San Diego Forward: The Regional Plan
RFS	Renewable Fuel Standard
R-G	Residential – Garden
R-H	Residential – Homestead
RHNA	Regional Housing Needs Assessment

Acronym/Abbreviation	Definition
R-M	Residential – Meadow
ROW	right-of-way
RPS	Renewables Portfolio Standard
RSL	Regional Screening Level
R-T	Residential – Twin
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SALS	Saint Andrews Lift Station
SANDAG	San Diego Association of Governments
SANTEC/ITE	San Diego Traffic Engineers' Council/Institute of Traffic Engineers
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 Air Pollution Control District
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas & Electric
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SLCP	short-lived climate pollutant
SO_2	sulfur dioxide
SoCalGas	Southern California Gas
SO_x	sulfur oxides
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TPHg	gasoline hydrocarbons
TWLTL	two-way left-turn lane
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
v/c	volume-to-capacity
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WPO	Watershed Protection, Stormwater Management, and Discharge Control Ordinance
ZEV	zero emissions vehicle

1 Executive Summary

1.1 Description

The Farm in Poway project (proposed project) consists of approximately 117.2 acres and includes a total of 160 homes and a mix of open space and recreational uses. Accessory dwelling units are permissible on detached single-family residences as required by state law. The proposed project would revitalize the decommissioned StoneRidge Country Club and associated 18-hole golf course through the development of a community with homes, open space, recreation, and commercial amenities. See Chapter 3, Project Description, for additional information.

The new land uses proposed by The Farm in Poway Specific Plan (Specific Plan) (The Farm in Poway LLC 2020) include two open space uses and five residential land uses. Open Space – Conservation (OS-C) is designed to serve as a physical and visual buffer between existing residential uses and new residential development, and may be planted with agriculture or naturalized drought-tolerant landscaping. Open Space – Recreation (OS-R) would allow up to 30,000 gross square feet of non-residential buildings that can be used for educational, social, and recreational uses. The Residential – Twin (R-T) allows for development of up to 22 twin homes. Residential – Cottage (R-C) allows for the development of up to 90 detached single-family homes. Residential – Garden (R-G) allows for the development of up to 13 detached single-family homes. Residential – Homestead (R-H) allows for the development of up to 20 detached single-family homes. Residential – Meadow (R-M) allows for the development of up to 15 detached single-family homes. All of the land use locations within the proposed projects are presented in Figure 1-1, Site Plan.

The proposed project would include approximately 70.37 acres of open space, which would consist of 55.72 acres of OS-C and 14.65 acres of OS-R. The residential land uses would encompass approximately 33.85 acres, ranging in density from 2.5 to 10.7 dwelling units per acre; overall density of the project is 1.4 dwelling units per acre. A simple majority approval by the voters of the City of Poway (City) at a special or general election (similar to Proposition FF voting requirements for open space) would be required for future increases in density as incorporated into the Poway Municipal Code by ordinance.

Specific Plan and Zone Reclassification

The project site is currently designated in the City of Poway Land Use and Zoning map as "Open Space-Recreation (OS-R)" (City of Poway 1991). A General Plan amendment and zoning amendment would be processed concurrently with the Specific Plan to designate the project site as "Planned Community (PC-9)." The amendment consists of both a map amendment and a Zoning Ordinance text amendment. Currently, the Planned Community (PC) zone may only be applied to properties 300 acres or larger. The proposed text amendment would revise the text to allow the project site, at its current size to be zoned as PC similar to the Poway Road Specific Plan. This new section would be added to the Zoning Ordinance that briefly describes The Farm in Poway Planned Community. This designation and zoning would be consistent with other specific plan areas throughout the City. Future changes to the proposed open space designations or increases in residential density or intensity of land uses would be subject to simple majority approval by the voters of the City at a special or general election (Proposition FF voting requirements apply to an open space redesignation).

Tentative Subdivision Map

The proposed project includes a tentative subdivision map. The map depicts the grading and drainage, individual residential lots, common ownership lots, public streets, private driveways, and infrastructure improvements. The map would be submitted concurrently with the Specific Plan. One or more final subdivision map(s) would be recorded.

Project Approvals

Approvals required to implement the proposed project include (1) a General Plan Amendment, (2) a Zone Change to Planned Community (PC) Zone, (3) a Tentative Subdivision Map, (4) a Specific Plan, (5) a Conditional Use Permit, (5) a Development Review, (6) an Environmental Assessment, and (7) a Proposition FF Rezone Vote.

Location

The project site is located in the northern portion of the City, and consists of the decommissioned StoneRidge Country Club and associated 18-hole golf course. The project site is bordered by Espola Road to the south; St. Andrews Drive to the north and west; and Cloudcroft Drive, Tam O'Shanter Drive, and Boca Raton Lane to the east. The project site consists of approximately 117.2 acres and currently has an address of 17166 Stoneridge Country Club Lane, Poway, California 92064. Figure 3-9, Project Location, shows the location of the project site within the County of San Diego (County) and the City. Figure 1-2, Project Site Vicinity and Aerial Map, depicts an aerial view of the project site and vicinity.

Setting

In a regional context, the City is situated near the middle of the County, approximately 20 miles north of downtown San Diego via Interstate 15 (I-15). The project site is approximately two miles east of I-15. The City boundary is approximately one-half mile west of the project site. I-15 runs generally parallel to the City's western border and provides connections to San Diego and Riverside Counties. The City's geographic setting is characterized by a network of hillsides and valleys and comprises an area that has many natural resources including creeks and channels, canyons, grassland areas, and mountains.

The surrounding residential development consists of mostly single-family homes. Some multi-family homes exist west of the middle of the project site, along Port Marnock Drive, and surrounded by the project site along Villamoura Drive and Valle De Lobo Drive. Planned community projects exist to the east of the project site, and open space designated for resource management exists southeast of the project site. The rest of the project site is surrounded by residential uses varying in density.

The location, density, and intensity of rural and suburban-style development within the surrounding communities have mainly developed through planned residential development, and are generally characterized by low-density single-family neighborhoods with pockets of medium-density single-family development (duplex units and small detached homes).

1.2 Summary of Significant Effects and Mitigation Measures that Reduce or Avoid the Significant Impacts

Table 1-1, Summary of Significant Effects, provides a summary of impact analysis, mitigation, and level of significance of impact after mitigation for each issue area. Chapter 4, Environmental Analysis, of this Environmental Impact Report (EIR) contains the analyses of all issue areas and includes proposed mitigation measures for identified impacts. As discussed in this EIR, implementation of the proposed project would result in significant impacts to air quality, biological resources, cultural and tribal resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and transportation. However, these significant impacts would all be mitigated to a less-than-significant levels. The proposed project would not result in any significant and unavoidable impacts.

1.3 Areas of Controversy

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019, for public review and comment. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR. Areas of controversy raised in the NOP public comment letters include the following:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy
- Green House Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services
- Transportation
- Utilities and Service Systems
- Wildfires

1.4 Issues to be Resolved by the Decision-Making Body

An EIR is an information document, used to inform the decision makers and the public of the environmental effects of a given project. The EIR includes discussion and inclusion of mitigation measures to reduce environmental impacts. The decision-making body must decide whether or how to mitigate significant impacts. The EIR includes a reasonable range of alternatives that might reduce significant impacts while still attaining some of the project's objectives. The decision makers must determine if any of these alternatives could substantially reduce significant impacts and still meet project objectives.

1.5 Project Alternatives

Three alternatives have been developed over time as the proposed project has evolved with agency meetings and input:

- No Project/No Development Alternative
- Reduced Density Alternative
- Reduced Development Footprint Alternative

These alternatives are discussed below in this order, as some evolved from the analysis of prior alternatives. All of these alternatives are analyzed in detail within Chapter 6, Alternatives, of this EIR. While some of these would avoid or reduce the proposed project's impacts, they do not meet most of the proposed project's objectives.

No Project/No Development Alternative

The California Environmental Quality Act (CEQA) requires an evaluation of the "No Project" alternative so that decision makers can compare the impacts of approving the proposed project with the impacts of not approving it (California Public Resources Code, Section 21000 et seq.). According to CEQA Guidelines Section 15126.6(e), the No Project Alternative must include the assumption that conditions at the time of the NOP (i.e., baseline environmental conditions) would not be changed since the proposed project would not be implemented.

The No Project/No Development Alternative assumes that the proposed project would not be developed, which means there would be no residential, recreational, park, trail, and other community and conservation uses developed on site. Traffic improvements would not be constructed. None of proposed project site would be permanently preserved as open space. In its existing condition, the site would remain an unsightly, abandoned, former golf course/clubhouse property. Maintenance and abatement would continue to be required to ensure the health, safety, and welfare of the public.

In comparing the No Project/No Development Alternative to the proposed project, CEQA provides that the "lead agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (14 CCR 15126.6[e][3][C]).

The No Project/No Development Alternative is compared to the proposed project as though it would remain in its existing condition; however, as noted under CEQA, the existing site, an abandoned former golf course facility, retains underlying General Plan land use designations and zoning. Thus, development of the existing site, consistent with available infrastructure and services, is a reasonably expected occurrence in the foreseeable future, even if the proposed project were not approved. As such, while no impacts are noted in the various environmental categories for the No Project/No Development Alternative as of this writing, it is reasonable to project future development on site because it is highly unlikely the existing site would remain in an undeveloped condition; and, instead, another development proposal is likely to occur with same or similar impacts as identified for the proposed project.

Reduced Density Alternative

The Reduced Density Alternative would include the development of 25 percent fewer residential units and larger unified lot sizes, for a total of 120 residential units. General Plan Land Use and Zoning Amendments would be required under this alternative, similar to the proposed project. Although fewer units would be developed, the footprint of disturbance to construct the reduced number of residences would be roughly the same as the proposed project since the lot sizes would be larger. The reduced density alternative would include some open space and recreation amenities, but to a much lesser degree compared to the proposed project, and would not include the Event Barn or social clubs.

Reduced Development Footprint Alternative

The Reduced Development Footprint Alternative would eliminate any development or improvements in the southwestern portion of the project site, located along the proposed Private Street B, as well as in the southwest corner of the project site. The reduction in homes would also result in a reduction in open space and recreational amenities.

1.6 Environmentally Superior Alternative

As shown in Table 1-2, Environmentally Superior Alternative, implementation of the No Project/No Development Alternative would result in the greatest reduction in significant impacts when compared to the proposed project. Because the No Project/No Development Alternative would result in the least amount of impacts to the environment, it would be the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative among the other alternatives.

Aside from the No Project/No Development Alternative, the Reduced Development Footprint Alternative would result in the least amount of environmental impacts. As compared to the proposed project, impacts associated with biological resources, hazards, noise, and transportation would be reduced. Therefore, this alternative is identified as the Environmentally Superior Alternative. However, the proposed project would mitigate all of these impacts to a level less than significant.

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
Air Quality			
AQ-1	The proposed project would result in daily construction emissions that would exceed the significance thresholds for oxides of nitrogen (NO_x) and carbon monoxide (CO).	MM-AQ-1 During project construction, the City of Poway shall ensure that the project contractor adheres to the following measures to reduce diesel particulate emissions, including, but not limited to: 1) All construction equipment greater than 75 horsepower shall be equipped with Tier 4 Interim diesel engines or better. 2) The engine size of construction equipment shall be the minimum size suitable for the required job. 3) The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time. 4) Construction equipment shall be maintained in tune per the manufacturer's specifications. 5) The prime contractor will provide the City of Poway verification of equipment type used during construction.	Less-than-Significant Impact
AQ-2	The proposed project would result in toxic air contaminant (TAC) exposure from construction diesel exhaust emissions that would result in cancer risk on site above the 10 in 1 million threshold, as well as Chronic Hazard Index less than one. Therefore, TAC emissions from construction of the proposed project may expose sensitive receptors to substantial pollutant concentrations.	See MM-AQ-1.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
AQ-CU-1	The proposed project would result in a potentially significant cumulative impact from criteria air pollutant emissions during construction.	See MM-AQ-1.		
Biological Resources				
BR-1	The proposed project would result in significant impacts to nesting birds if suitable nesting habitats, such as mature trees, are removed during the general bird breeding season from February 1 to September 15.	MM-BR-1	Removal of habitat that supports active nests in the proposed project area of disturbance shall occur outside of the breeding season for nesting birds (February 1 to September 15). If removal of the habitat in the proposed area of disturbance must occur during the breeding season, a qualified biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds or raptors protected under the Migratory Bird Treaty Act and California Fish and Game Code. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to the City of Poway (City) for review and approval prior to initiating any construction activities. 1) If nesting birds are detected, a letter report or mitigation plan (pre-construction survey) in conformance with applicable state and federal law (e.g., appropriate follow-up surveys, monitoring schedules, construction, noise barriers, and/or buffers up to 300 feet) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs, or disturbance of breeding activities, is avoided. The report or mitigation plan shall be submitted to the City for review and approval. The recommendations contained in the mitigation plan shall be implemented to the satisfaction of the City. 2) If nesting birds are not detected during the pre-construction survey, no further mitigation is required.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
		3) If nesting birds are detected and construction activities are to occur during the breeding season the following mitigation measures shall be implemented: a) No vegetation clearing shall occur within 300 feet of an active raptor nest and 100 feet of an active nest of a non-listed bird species until a biologist has determined that the young have fledged from the nest or that the nest is inactive (i.e., abandoned). b) A mitigation plan outlining active nest avoidance measures in conformance with applicable state and federal law shall be prepared and submitted to the City of Poway for review and approval. c) During construction, active nests shall be monitored on a daily basis to determine the effectiveness of the avoidance measures being implemented. The biologist shall monitor all active nests until all young have fledged or until the nest is determined inactive. d) A minimum 300-foot buffer between the location of an active raptor nest and the nearest construction activity shall be maintained until the young have fledged from the nest or until the nest is determined inactive. For nests of non-raptor birds, a buffer of 100 feet shall be maintained. 4) While no specific noise level thresholds have been established for raptors or other non-listed bird species, construction activities that are expected to generate noise levels above the ambient noise level shall be measured by an acoustician technician. The active nest shall also be monitored by a biologist to determine if there is any effect on the breeding behavior of the particular species from the elevated noise levels. If it is determined that the elevated noise level is having an effect on the breeding behavior of the nesting bird species, then the noise generating construction activity shall be suspended in the vicinity of the active nest until such time as all of the young birds have fledged or until the nest is determined inactive.	

Table 1-1. Summary of Significant Effects

<table>
<tr><th>Impact No.</th><th>Impact</th><th>Mitigation</th><th>Conclusion and Mitigation Effectiveness</th></tr>
<tr><td>BR-2</td><td>The proposed project would impact 0.16 acres of wetland/riparian and other sensitive natural communities.</td><td>
MM-BR-2 Impacts to jurisdictional waters require a 404 permit from the U.S. Army Corps of Engineers, a 401 state water quality certification from the Regional Water Quality Control Board, and a 1602 streambed alteration agreement from the California Department of Fish and Wildlife. Impacts to the sensitive habitat, including jurisdictional waters, within the project site require compensating mitigation, restoration, or revegetation, or a combination thereof, inside a priority Mitigation Area as defined by the Poway Subarea Habitat Conservation Plan/Natural Community Conservation Plan (Poway Subarea HCP/NCCP), Section 5.5. This can be achieved by one of the following:
1) Purchase or dedication of lands inside the City of Poway’s Mitigation Area as a biological open space.
2) Payment of in-lieu fees into a mitigation bank administered by the City of Poway or a land trust acting as an agent of the City of Poway.
Applicable permits necessary to develop over the wetland habitat features in the project site require a no-net-loss ratio. The Poway Subarea HCP/NCCP states that mitigation ratios of 2:1 would be required for impacts to fresh water marsh and open water. As described in the following table, the total mitigation for jurisdictional waters impacts is estimated to total 0.39 acres, but requires approval by the aforementioned resource agencies through their respective permit processes, which would occur before project development.
Mitigation Requirements
<table>
<tr><th>Vegetation Community</th><th>Impact</th><th>Mitigation Ratio</th><th>Total Mitigation Required</th></tr>
<tr><td>Freshwater Marsh</td><td>0.02</td><td>2:1</td><td>0.04</td></tr>
<tr><td>Open Water</td><td>0.14</td><td>2:1</td><td>0.28</td></tr>
<tr><td>Concrete-Lined Channel</td><td>0.07</td><td>1:1</td><td>0.07</td></tr>
<tr><td>Total</td><td>0.16</td><td>—</td><td>0.39</td></tr>
</table>
Source: Appendix C
</td><td>Less-than-Significant Impact</td></tr>
</table>

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
BR-3	The proposed project would impact 0.23 acres of jurisdictional waters and wetlands.	See MM-BR-2.	Less-than-Significant Impact
BR-4	The proposed project would result in the unavoidable impact of trees and sensitive habitats on the project site, therefore being in conflict with local regulations.	See MM-BR-2. **MM-BR-3** If it is not feasible to avoid trees on the project site, the project applicant shall replace all impacted trees as follows: **1)** Native coast live oaks (*Quercus agrifolia*) will be mitigated at minimum 4:1 ratio and shall use 24-inch box specimen trees to be located on site. **2)** Any non-native trees removed will be replaced with one 15-gallon tree per 750 square feet of ornamental landscape (20 percent of which shall be 24-inch box specimen trees).	Less-than-Significant Impact
BR-CU-1	The proposed project would potentially contribute to a cumulatively considerable impact to nesting birds.	See MM-BR-1.	Less-than-Significant Impact
BR-CU-2	The proposed project would potentially contribute to a cumulatively considerable impact to wetland/riparian and other sensitive natural communities.	See MM-BR-2.	Less-than-Significant Impact
BR-CU-3	The proposed project would potentially contribute to a cumulatively considerable impact to jurisdictional waters and wetlands.	See MM-BR-2.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
BR-CU-4	The proposed project would potentially contribute to a cumulatively considerable impact to mature and protected trees.	See MM-BR-3.		Less-than-Significant Impact
Cultural and Tribal Cultural Resources				
CUL-1	The proposed project has the potential to unearth subsurface prehistoric archaeological materials during ground-disturbing activities, resulting in a potentially significant impact.	MM-CUL-1	An archaeological resources monitoring program shall be implemented and include the following: 1) Prior to issuance of a grading permit, the applicant shall provide written verification that a qualified archaeologist has been retained to implement the monitoring program. This verification shall be presented in a letter from the project archaeologist to the Lead Agency. 2) The certified archaeologist shall attend the pre-grading meeting with the contractors to explain and coordinate the requirements of the monitoring program. 3) The consulting archaeologist shall direct the field monitor during grading of all areas identified for development. 4) Native American monitoring will be required during grading, unless the certified archaeologist determines that the potential for cultural resources has been exhausted. The Native American monitors will be directed by the project archaeologist. Native American monitors/representatives from the Kumeyaay nation and The Jamul Indian Village of California shall be invited to participate in the monitoring program. 5) During the original cutting of previously undisturbed deposits, the archaeological monitor and Native American representative shall be on site, as determined by the consulting archaeologist, to perform inspections of the excavations. Full- or part-time inspections may be needed depending upon the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. 6) Isolates and clearly non-significant deposits will be minimally documented in the field so the monitored grading can proceed.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
		7) In the event that previously unidentified cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground-disturbance operation in the area of discovery to allow for the evaluation of potentially significant cultural resources. The archaeologist shall contact the Lead Agency at the time of discovery. The archaeologist, in consultation with the Lead Agency, shall determine the significance of the discovered resources. The Lead Agency must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources that are discovered and that will be destroyed by grading, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the Lead Agency before being carried out using professional archaeological methods. If any human remains are discovered, all grading at that location must stop and the County of San Diego Coroner's office and Lead Agency shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains. 8) Before construction activities are allowed to resume in the location of any discovered significant cultural deposits, the artifacts shall be recovered and features recorded using professional archaeological methods. The archaeological monitor(s) shall determine the amount of material to be recovered for an adequate artifact sample for analysis. 9) All cultural material collected during the grading monitoring program shall be processed and curated according to the current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility, to be accompanied by payment of the fees necessary for permanent curation. 10) A report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the Lead Agency prior to the issuance of any building permits. The report will include DPR Primary and Archaeological Site Forms.	

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
CUL-2	In the event of accidental discovery of any human remains during construction of the proposed project, impacts associated with the disturbance of human remains would be potentially significant.	MM-CUL-2	As specified by California Health and Safety Code, Section 7050.5, if human remains are found on the project site during construction or during archaeological work, the person responsible for the excavation, or his or her authorized representative, shall immediately notify the County of San Diego Coroner's office and the City of Poway Development Services Division. Determination of whether the remains are human shall be conducted on site and in situ (where they are discovered) by a forensic anthropologist, unless the forensic anthropologist and the Native American monitor agree to remove the remains to an off-site location for examinations. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County of San Diego Coroner's office has made the necessary findings as to origin and disposition. A temporary construction exclusion zone may be established surrounding the area of the discovery so that the area would be protected, and consultation and treatment shall occur as prescribed by law or as otherwise recommended by a qualified professional in concurrence with Tribal representatives or other represented entities. In the event that the remains are determined to be of Native American origin, the most likely descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains in accordance with California Public Resources Code, Section 5097.98. The Native American remains shall be kept in situ, or in a secure location in close proximity to where they were found, and the analysis of the remains shall only occur on site and in the presence of a Native American monitor.	Less-than-Significant Impact
CUL-3	If unknown tribal resources were unearthed during grading activities, then implementation of the proposed project has the potential to cause a substantial adverse change in the significance of a tribal cultural resource, as	See MM-CUL-1.		Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
	defined in Section 21074 of the California Public Resources Code.		
Geology and Soils			
GEO-1	The proposed project could result in potentially significant impacts associated with seismic-related ground failure, including liquefaction, due to the unknown depth of groundwater on-site and the potential for liquefiable soils.	MM-GEO-1 The Geologic Reconnaissance (Appendix E) includes the following recommendations, which shall be incorporated as mitigation measures to minimize soil erosion or the loss of topsoil, and potential risks associated with liquefaction: 1) Prior to issuance of a grading permit, an additional geotechnical study shall be completed that includes a subsurface investigation to evaluate the underlying geologic conditions on the property and to provide specific geotechnical recommendations. This study shall include evaluation of surficial deposits, and a rippability analysis of the granitic rock in areas of planned development. 2) The site is underlain by surficial units that include artificial fill, alluvial, and colluvial deposits. These deposits shall require remedial grading in the form of removal and compaction where improvements are planned. 3) Cut slopes shall be observed by an engineering geologist during grading to verify that the soil and geologic conditions do not differ significantly from those anticipated. Additional recommendations will be provided in the event that adverse conditions are encountered, such as but not limited to, scaling of loose rock fragments from proposed cut slopes.	Less-than-Significant Impact
GEO-2	The proposed project could result in a potentially significant impact associated with soil erosion because on-site artificial fill, alluvium, and colluvium deposits are presently unsuitable to support fill and/or structural loads where improvements are planned.	See MM-GEO-1.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
GEO-3	The proposed project could result in a potentially significant impact relative to the location of expansive soils on-site that may result in substantial direct or indirect risks to life or property.	MM-GEO-2	The Geological Reconnaissance (Appendix E) includes the following recommendations, which shall be incorporated as mitigation measures to minimize potential risks from expansive soil: 1) Samples of soil materials to be used for fill shall be tested in the laboratory to determine the maximum density, optimum moisture content, and, where appropriate, shear strength, expansion, and gradation characteristics of the soil. 2) Where practical, soils having an Expansion Index greater than 50 should be placed at least 3 feet below finish pad grade and should be compacted at a moisture content generally 2 to 4 percent greater than the optimum moisture content for the material.	Less-than-Significant Impact
GEO-4	If unexpected intact paleontological resources are unearthed during ground-disturbing activities, then the proposed project could result in significant impacts to unique paleontological resources or sites, or unique geologic features.	MM-GEO-3	Prior to commencement of project construction, a qualified paleontologist shall be retained to attend the project pre-construction meeting and discuss proposed grading plans with the project contractor(s). If the qualified paleontologist determines that proposed grading/excavation activities would likely affect previously undisturbed areas of Pleistocene-age alluvial deposits as a result of cuts into native soils, then monitoring shall be conducted as outlined below. 1) A qualified paleontologist or a paleontological monitor under the direction and supervision of a qualified paleontologist, shall be on site during original cutting of Pleistocene-age alluvial deposits. A paleontological monitor is defined as an individual who has at least one year of experience in field identification and collection of fossil materials, and who is working under the direction of a qualified paleontologist. Monitoring of the noted geologic unit shall be conducted at least half-time at the beginning of excavation, and may be either increased or decreased thereafter depending upon initial results (per direction of a qualified paleontologist). a) Qualified Paleontologist: The project paleontologist is a person who has a Ph.D. or M.S. or equivalent in paleontology or closely related field (e.g., sedimentary or stratigraphic geology, evolutionary biology); has a	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
		demonstrated knowledge of Southern California paleontology and geology; and has documented experience performing professional paleontological procedures and techniques. b) Qualified Paleontological Monitor: A paleontological monitor is defined as an individual with at least one year of experience in field identification and collecting of fossil materials. 2) Monitoring of the noted geologic unit shall be conducted at least half-time at the beginning of the excavation, and may be either increased or decreased thereafter by the qualified paleontologist depending upon initial results of monitoring. 3) In the event that well-preserved fossils are discovered, a qualified paleontologist shall have the authority to temporarily halt or redirect construction activities in the discovery area to allow recovery in a timely manner (typically on the order of one hour to two days). All collected fossil remains shall be cleaned, sorted, cataloged and deposited in an appropriate scientific institution (such as the San Diego Natural History Museum) at the applicant's expense. 4) A report (with a map showing fossil site locations) summarizing the results, analyses, and conclusions of the above-described monitoring/recovery program shall be submitted to the City of Poway within three months of terminating monitoring activities.	
Greenhouse Gas Emissions			
GHG-1	The proposed project would result in 4,245 metric tons of carbon dioxide equivalent (MT CO_2e) per year, which would be greater than the significance threshold of 900 MT CO_2e per year	MM-GHG-1 The applicant or its designee shall include the following features to reduce greenhouse gas emissions during operation: 1) Develop a comprehensive pedestrian network designed to provide safe bicycle and pedestrian access between the various internal proposed project land uses, which will include design elements to enhance walkability and connectivity and shall minimize barriers to pedestrian access and interconnectivity. Physical barriers—such as walls or landscaping—that impede pedestrian circulation shall be eliminated.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
			2) Include special safety mobility features such as enhanced crosswalks for high visibility, pedestrian signals with countdown timers, leading pedestrian interval timing, Americans with Disabilities Act (ADA)-compliant curb ramps, and smart adaptive signals that can adjust signal phasing and extend pedestrian walk time based upon time of day. The smart adaptive signals help to optimize traffic flows to reduce idling time. 3) Promote ridesharing programs through a multi-faceted approach, such as designating a certain percentage of parking spaces for ridesharing vehicles, designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles, or providing a website or message board for coordinating rides. 4) Install Energy Star rated heating, cooling, lighting, and appliances. 5) Outdoor lighting shall be light emitting diodes (LED) or other high-efficiency lightbulbs. 6) Implement water-sensitive urban design practices in new construction. 7) Strategically plant trees to provide shade. 8) Equip structures with outdoor electric outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment. 9) Outdoor pavement, such as walkways and patios, shall include paving materials with three-year Solar Reflective Index (SRI) of 0.28 or initial SRI of 0.33, or other equivalent cool pavement.	
		MM-GHG-2	The applicant or its designee shall purchase and retire greenhouse gas (GHG) offsets to reduce the proposed project's GHG emissions level to 900 metric tons of carbon dioxide equivalent (MT CO_2e) per year, consistent with the performance standards and requirements set forth below. 1) The GHG offsets shall be secured from an accredited registry that is recognized by the California Air Resources Board (CARB) or a California air district, or from an emissions reduction credits program that is administered by CARB or a California air district. 2) The GHG offsets shall represent the past reduction or sequestration of one MT CO_2e that is "not otherwise required," in accordance with California	

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
			Environmental Quality Act Guidelines Section 15126.4(c)(3). 3) The GHG offsets shall be real, permanent, quantifiable, verifiable, and enforceable. 4) The quantity of GHG offsets required to achieve the service population value set forth above shall be calculated in and supported by technical documentation that is submitted to the City as part of the Mitigation Monitoring and Reporting Program, using an approved methodology demonstrating the quantity of reductions is valid and sufficient. 5) The applicant shall offset the proposed project's GHG emissions prior to receiving the 80th certificate of occupancy from the City. This represents 50 percent of the proposed project's residential build-out and thus the proposed project's emissions would be offset prior to completion of the proposed project.	
Hazards and Hazardous Materials				
HAZ-1	Many of the structures on the project site have the potential to contain asbestos-containing materials, lead-based paint, and universal wastes; and electrical components, such as transformers, which could contain polychlorinated biphenyls (PCBs). Should demolition or alteration occur without proper identification and abatement of these hazardous building materials, this could pose a significant hazard to the public or environment.	MM-HAZ-1	Prior to demolition or renovation of project site structures that were built before 1980, a hazardous building materials survey shall be conducted by a California Department of Public Health (DPH) Certified Asbestos Consultant and/or Certified Site Surveillance Technician and a California DPH Certified Lead Inspector/Risk Assessor or Sampling Technician. A report documenting material types, conditions and general quantities will be provided, along with photos of positive materials and diagrams. Demolition or renovation plans and contract specifications shall incorporate any abatement procedures for the removal of material containing asbestos, lead-based paint, universal wastes and/or polychlorinated biphenyl (PCB)-containing equipment. All abatement work shall be done in accordance with federal, state, and local regulations, including those of the U.S. Environmental Protection Agency (which regulates disposal), Air Pollution Control District, Occupational Safety and Health Administration, U.S. Department of Housing and Urban Development, California Occupational Safety and Health Administration (which regulates employee exposure), and the South Coast Air Quality Management District.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
HAZ-2	A former leaking underground storage tank (LUST) case is located at the southwest corner of the project site. While this case received regulatory closure from the San Diego Regional Water Quality Control Board (San Diego RWQCB), methyl tertiary butyl ether (MTBE) contamination was allowed to remain in groundwater on the project site. Contaminated groundwater could pose a significant hazard to the public or environment should the site be redeveloped	MM-HAZ-2	The San Diego Regional Water Quality Control Board (San Diego RWQCB) is the regulatory agency in charge of the former leaking underground storage tank (LUST) case on the project site. Prior to construction or excavation activities in the area of the former LUST, San Diego RWQCB will be consulted regarding requirements necessary to meet the advisories of the LUST closure letter and requirements for residential development in order to protect human health and the environment. Requirements set forth by the San Diego RWQCB will be implemented prior to excavation and development of the project site. An example of these requirements may include participation in the County of San Diego Department of Environmental Health Voluntary Assistance Program and a soils management plan prepared by a Geotechnical Engineer or Geologist.	Less-than-Significant Impact
Noise				
NOI-1	During proposed grading activities for the on-site trail system that are expected as close as 25 feet to off-site noise-sensitive receptors, and retention basin construction involving the assemblage of equipment working right at the edge of the construction zone in each phase and within 15 feet of existing residences,	MM-NOI-1	Prior to the issuance of a Construction Permit, the project applicant/owner or construction contractor shall prepare and submit to the City of Poway Planning Division for its review and approval a Construction Noise Management Plan (CNMP). Prior to the issuance of a Construction Permit, construction plans shall also include a note indicating compliance with the CNMP is required. The CNMP shall be prepared or reviewed by a qualified acoustician (retained at the project applicant/owner or construction contractor's expense) and feature the following: 1) A detailed construction schedule, at daily (or weekly, if activities during each day of the week are typical) resolution and correlating to areas or zones of on-site project construction activities and the anticipated equipment types and quantities involved. Information shall include expected hours of actual	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
	construction noise levels are anticipated to exceed the City's construction noise limit of 75 A-weighted decibel (dBA) L_{eq} over an eight-hour period.	operation per day for each type of equipment per phase and indication of anticipated concurrent construction activities on site. 2) Suggested locations of a set of noise-level monitors, attended by a qualified acoustician or another party under his/her supervision or direction, at which sample outdoor ambient noise levels will be measured and collected over a sufficient sample period and subsequently analyzed (i.e., compared with applicable time-dependent A-weighted decibel [dBA] thresholds) to ascertain compliance with the eight-hour City of Poway threshold of 75 dBA equivalent noise level over a consecutive eight-hour period. Sampling shall be performed, at a minimum, on the first (or otherwise considered typical construction operations) day of each distinct construction phase (e.g., each of the five listed phases in Table 4.11-2, Construction Phase Distance to Nearest Pre-Existing Noise-Sensitive Receptors). 3) If sample collected noise level data indicates that the eight-hour noise threshold has or will be exceeded, construction work shall be suspended (for the activity or phase of concern) and the project applicant/owner or construction contractor shall implement one or more of the following measures as detailed or specified in the CNMP: a) Administrative controls (e.g., reduce operating time of equipment and/or prohibit usage of equipment type[s] within certain distances). b) Engineering controls (upgrade noise controls, such as install better engine exhaust mufflers). c) Install noise abatement on the project site boundary fencing (or within the project site, as practical and appropriate) in the form of sound blankets or comparable temporary barriers to occlude construction noise emission between the project site (or specific equipment operation as the situation may define) and the noise-sensitive receptor(s) of concern. The implemented measure(s) shall be reviewed or otherwise inspected and approved by the qualified acoustician (or another party under his/her supervision or direction) prior to resumption of the construction activity or	

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
		process that caused the measured noise concern or need for noise mitigation. Noise levels shall be re-measured, after installation of said measures, to ascertain post-mitigation compliance with the noise threshold. As needed, this process shall be repeated and refined until noise level compliance is demonstrated and documented. A report of this implemented mitigation and its documented success shall be provided to the City of Poway Planning Division. The project applicant/owner or construction contractor shall make available a telephone hotline so that concerned neighbors in the community may call to report noise complaints. The CNMP shall include a process to investigate these complaints and, if determined to be valid, detail efforts to provide a timely resolution and response to the complainant—with copy of resolution provided to the City of Poway Planning Division.	
NOI-2	Regarding proposed construction of Private Street B, when the entire assemblage of construction equipment is working right at the edge of the construction zone in each phase, within 36 feet of existing residences, construction noise levels are anticipated to reach up to 78 dBA L_{eq}. Assuming relatively steady work, this would result in an exceedance of the City's construction noise limit of 75 dBA L_{eq} over an eight-hour period.	See MM-NOI-1.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
NOI-3	Regarding proposed rock blasting event noise, at 400 feet of existing off-site residences, eight-hour noise levels are anticipated to reach up to 80 dBA L_{eq}. Assuming a heavily confined per-delay charge weight of 18.5 pounds, this would result in an exceedance of the City's construction noise limit of 75 dBA L_{eq} over an eight-hour period.	MM-NOI-2	The project applicant/owner or its construction contractor(s) shall prepare, or cause to be prepared, a blasting/drilling monitoring plan. The plan shall be site specific, based on general and exact locations of required blasting and the results of a project-specific geotechnical investigation. The blasting plan shall include a description of the planned blasting methods, an inventory of receptors potentially affected by the planned blasting, and calculations to determine the area affected by the planned blasting that include estimates of the pre-blast drill noise levels, air-blast overpressure sound levels, and groundborne vibration levels at each residence within 500 feet of a blasting location. Where potential exceedances of relevant noise and vibration exposure limits are identified, the blasting/drilling monitoring plan shall identify mitigation measures shown to effectively reduce noise and vibration levels (e.g., altering orientation of blast progression, increased delay between charge detonations, pre-splitting) to be implemented in order to demonstrate compliance with these thresholds. Additionally, all project phases involving blasting shall conform to the following requirements: 1) All blasting shall be performed by a blast contractor and blasting personnel licensed to operate per appropriate regulatory agencies. 2) Prior to blasting, a qualified geotechnical professional shall inspect and document the existing conditions of facades and other visible structural features or elements of the nearest residential buildings. Should this inspector determine that some structural features or elements appear fragile or otherwise potentially sensitive to vibration damage caused by the anticipated blasting activity, the maximum per-delay charge weights and other related blast parameters shall be re-evaluated to establish appropriate quantified limits. 3) Each blast shall be monitored and recorded with an air-blast overpressure monitor and groundborne vibration accelerometer that is located outside the closest residence to the blast. This data shall be recorded, and a post-blast summary report shall be prepared and be available for public review or distribution as necessary.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
			4) Blasting shall not exceed 0.5 inches per second peak particle velocity at the nearest occupied residence, in accordance with the California Department of Transportation's Transportation and Construction Vibration Guidance Manual. 5) To ensure that potentially impacted residents are informed, the applicant shall provide notice by mail to all property owners within 1,000 feet of the project at least one week prior to a scheduled blasting event. 6) Pre-blast drilling operations associated with blasting preparations shall be performed in a manner consistent with adherence to City of Poway regulations and guidance.	
NOI-4	Regarding The Event Barn and The Social, under the right conditions the occurrence and duration of regular events could risk exceeding the required off-site residential land use threshold of 60 dBA CNEL as identified by the Specific Plan. The on-site noise limit of 70 dBA CNEL may also be exceeded under the right conditions. At the same venue, the occurrence, type, intensity and duration of special events (especially those during nighttime hours) would also risk exceeding the same standards.	MM-NOI-3	Operation of any "regular event" at The Event Barn (and The Social), as defined by 3.2.3.B of The Farm in Poway Specific Plan Additional Open Space Standards, shall conform to the following acoustical conditions: 1) Daytime (within 8 a.m. to 7 p.m.) a) Attendance shall not exceed 300, including residents, guests, visitors, and any on-site support staff that host the event in progress. b) Event duration shall not exceed a cumulative total of three hours. c) The aggregate sound level from live (acoustic) or amplified music shall not exceed a total of 103 A-weighted decibel (dBA) at a distance of 10 feet. If speakers are positioned to distribute the amplified sound, they must be positioned in such a manner that The Event Barn Wall provides linear occlusion between the speaker and the nearest existing residential receptors south of Espola Road. d) If any proposed event parameters above are not listed or may exceed the indicated constraints, then a qualified acoustician shall prepare or review a predictive sound propagation analysis prior to the proposed event in order to identify need for recommended noise control or sound abatement implantation measures that could include (but not be limited to): i. Via the pre-installed house audio-visual (A/V) system or on A/V hardware supplied by the hosted event performers, set electronic	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
		controls on amplified sound levels to comply with recommended front-of-stage and/or property line expectations. ii. Install temporary noise walls, curtains, or other barrier forms so as to improve containment and absorption of sound within The Event Barn Lawn venue space and minimize spill-over noise to the property line and community beyond. iii. Install on-site sound level measurement systems (e.g., akin to NTiAudio or comparable supplier technology) to monitor event sound levels in real-time and provide alerts to event hosts and administrators. Collected data and alerts offer opportunity to provide feedback to event performers as part of implementing administrative control of sound emission levels. Collected data from 1.d.iii can also provide documentation that an event was fully compliant with required sound limits at the property line(s), and might be used to support assertions that future events having identical conditions (e.g., an annual seasonal festival) would also be compliant and thus waive the need for additional monitoring (at the discretion or approval of the City of Poway). 2) Evening (7 p.m. to 10 p.m.) a) Attendance shall not exceed 300, including residents, guests, visitors, and any on-site support staff that host the event in progress. b) Event duration shall not exceed a cumulative total of three hours. c) The aggregate sound level from live (acoustic) or amplified music shall not exceed a total of 98 dBA at a distance of 10 feet. If speakers are positioned to distribute the amplified sound, they must be positioned in such a manner that The Event Barn Wall provides linear occlusion between the speaker and the nearest existing residential receptors south of Espola Road. d) If any proposed event parameters above are not listed or may exceed the indicated constraints, then a qualified acoustician shall prepare or review a predictive sound propagation analysis prior to the proposed event in order to identify need for recommended noise control or sound abatement implantation measures that could include (but not be limited to):	

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
		i. Via the pre-installed house A/V system or on A/V hardware supplied by the hosted event performers, set electronic controls on amplified sound levels to comply with recommended front-of-stage and/or property line expectations. ii. Install temporary noise walls, curtains, or other barrier forms so as to improve containment and absorption of sound within The Event Barn Lawn venue space and minimize spill-over noise to the property line and community beyond. iii. Install on-site sound level measurement systems (e.g., akin to NTiAudio or comparable supplier technology) to monitor event sound levels in real-time and provide alerts to event hosts and administrators. Collected data from 2.d.iii can also provide documentation that an event was fully compliant with required sound limits at the property line(s), and might be used to support assertions that future events having identical conditions (e.g., an annual seasonal festival) would also be compliant and thus waive the need for additional monitoring (at the discretion or approval of the City of Poway). 3) Conduct of a "special event" (i.e., that is not considered a "regular event") at The Event Barn (and The Social), as defined by 3.2.3.B of The Farm in Poway Specific Plan Additional Open Space Standards, shall require a City-approved Temporary Use Permit. At the City's discretion, the Temporary Use Permit application may require the approval of a predictive sound propagation analysis prepared by a qualified acoustician to identify recommended noise control and sound abatement implementation measures that—as implemented properly by the permit applicant—would be expected to result in event-attributed noise levels that are compliant with the Farm in Poway Specific Plan Additional Open Space Standards as follows: a) No greater than 60 dBA CNEL at the property lines of existing residential receptors adjoining the project site; and, b) No greater than 70 dBA CNEL at the property lines of on-site residential receptors within the project site.	

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
NOI-5	Regarding The Meadow (Amphitheater), under the right conditions the occurrence and duration of regular events could risk exceeding the required off-site residential land use threshold of 60 dBA CNEL as identified by the Specific Plan. The on-site noise limit of 70 dBA CNEL may also be exceeded under the right conditions. At the same venue, the occurrence, type, intensity, and duration of special events (especially those during nighttime hours) would also risk exceeding the same standards.	MM-NOI-4	Operation of any "regular event" at The Meadow (Amphitheater), as defined by 3.2.3.B of The Farm in Poway Specific Plan Additional Open Space Standards, shall conform to the following acoustical conditions: 1) Daytime (within 8 a.m. to 7 p.m.) a) Attendance shall not exceed 300, including residents, guests, visitors, and any on-site support staff that host the event in progress. b) Event duration shall not exceed a cumulative total of three hours. c) The aggregate sound level from live (acoustic) or amplified music shall not exceed a total of 97 A-weighted decibel (dBA) at a distance of 10 feet. If speakers are positioned to distribute the amplified sound, they must be positioned in such a manner that The Event Barn Wall provides linear occlusion between the speaker and the nearest existing residential receptors south of Espola Road. d) If any proposed event parameters above are not listed or may exceed the indicated constraints, then a qualified acoustician shall prepare or review a predictive sound propagation analysis prior to the proposed event in order to identify need for recommended noise control or sound abatement implantation measures that could include (but not be limited to): i. Via the pre-installed house audio-visual (A/V) system or on A/V hardware supplied by the hosted event performers, set electronic controls on amplified sound levels to comply with recommended front-of-stage and/or property line expectations. ii. Install temporary noise walls, curtains, or other barrier forms so as to improve containment and absorption of sound within The Event Barn Lawn venue space and minimize spill-over noise to the property line and community beyond. iii. Install on-site sound level measurement systems (e.g., akin to NTiAudio or comparable supplier technology) to monitor event sound levels in real-time and provide alerts to event hosts and administrators. Collected data and alerts offer opportunity to provide feedback to event performers as part of implementing administrative control of sound emission levels.	Less-than-Significant Impact

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
		Collected data from 1.d.iii can also provide documentation that an event was fully compliant with required sound limits at the property line(s), and might be used to support assertions that future events having identical conditions (e.g., an annual seasonal festival) would also be compliant and thus waive the need for additional monitoring (at the discretion or approval of the City of Poway). 2) Evening (7 p.m. to 10 p.m.) a) Attendance shall not exceed 300, including residents, guests, visitors, and any on-site support staff that host the event in progress. b) Event duration shall not exceed a cumulative total of three hours. c) The aggregate sound level from live (acoustic) or amplified music shall not exceed a total of 92 dBA at a distance of 10 feet. If speakers are positioned to distribute the amplified sound, they must be positioned in such a manner that The Event Barn Wall provides linear occlusion between the speaker and the nearest existing residential receptors south of Espola Road. d) If any proposed event parameters above are not listed or may exceed the indicated constraints, then a qualified acoustician shall prepare or review a predictive sound propagation analysis prior to the proposed event in order to identify need for recommended noise control or sound abatement implantation measures that could include (but not be limited to): i. Via the pre-installed house A/V system or on A/V hardware supplied by the hosted event performers, set electronic controls on amplified sound levels to comply with recommended front-of-stage and/or property line expectations. ii. Install temporary noise walls, curtains, or other barrier forms so as to improve containment and absorption of sound within The Event Barn Lawn venue space and minimize spill-over noise to the property line and community beyond. iii. Install on-site sound level measurement systems (e.g., akin to NTiAudio or comparable supplier technology) to monitor event sound levels in real-time and provide alerts to event hosts and administrators. Collected data from 2.d.iii can also provide documentation that an event was fully compliant with required sound limits at the property line(s), and might be	

Table 1-1. Summary of Significant Effects

Impact No.	Impact	Mitigation		Conclusion and Mitigation Effectiveness
			used to support assertions that future events having identical conditions (e.g., an annual seasonal festival) would also be compliant and thus waive the need for additional monitoring (at the discretion or approval of the City of Poway). 3) Conduct of a "special event" (i.e., that is not considered a "regular event") at The Meadow, as defined by 3.2.3.B of The Farm in Poway Specific Plan Additional Open Space Standards, shall require a City-approved Temporary Use Permit. At the City's discretion, the Temporary Use Permit application may require the approval of a predictive sound propagation analysis prepared by a qualified acoustician to identify recommended noise control and sound abatement implementation measures that—as implemented properly by the permit applicant—would be expected to result in event-attributed noise levels that are compliant with The Farm in Poway Specific Plan Additional Open Space Standards as follows: a) No greater than 60 dBA CNEL at the property lines of existing residential receptors adjoining the project site; and, b) No greater than 70 dBA CNEL at the property lines of on-site residential receptors within the project site.	
Transportation				
TRA-1	The proposed project would exacerbate level of service (LOS) F during the AM/PM peak hours at Intersection 17, Pomerado Road/Stone Canyon Road.	MM-TRA-1	*Intersection 17. Pomerado Road/Stone Canyon Road* – Prior to Certificate of Occupancy, the proposed project shall modify the traffic signal to provide east/west split phasing.	Less-than-Significant Impact
TRA-CU-1	The proposed project would exacerbate LOS F during the AM/PM peak hours at Intersection 17, Pomerado Road/Stone Canyon Road.	See MM-TRA-1.		Less-than-Significant Impact

Table 1-2. Environmentally Superior Alternative

Issue Areas with Potentially Significant Impacts	Proposed Project	Alternatives Considered		
		1	*2*	*3*
		No Project/No Development	*Reduced Density Alternative*	*Reduced Development Footprint Alternative*
Air Quality	LTS	▼	▼	▼
Biological Resources	LTS	▼	–	▼
Cultural and Tribal Cultural Resources	LTS	▼	–	–
Geology and Soils	LTS	▼	–	–
Greenhouse Gas Emissions	LTS	▼	–	–
Hazards and Hazardous Materials	LTS	▼	–	▼
Noise	LTS	▼	▼	▼
Transportation and Traffic	LTS	▼	▼	▼

Notes: LTS = Less than Significant with mitigation measures.
▲ Alternative is likely to result in greater impacts to issue when compared to Project.
– Alternative is likely to result in similar impacts to issue when compared to Project.
▼ Alternative is likely to result in reduced impacts to issue when compared to Project.

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SOURCE: The Farm in Poway, LLC, 2020

FIGURE 1-1
Site Plan
The Farm in Poway

DUDEK

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SOURCE: SANGIS 2017, 2019

DUDEK

0 500 1,000 Feet

FIGURE 1-2

Project Site Vicinity and Aerial Map

The Farm in Poway

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2 Introduction

This draft Environmental Impact Report (EIR) for The Farm in Poway project and associated discretionary actions described in Chapter 3, Project Description, (collectively referred to throughout this EIR as the "proposed project") has been prepared for the City of Poway (City) in accordance with the California Environmental Quality Act (CEQA) Statute (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.), as well as CEQA's Significance Determination Thresholds (Appendix G of the CEQA Guidelines).

The proposed project includes recommendations to help maintain the City's "City in the Country" motto and lifestyle, through the adoption of The Farm in Poway Specific Plan (Specific Plan) for the proposed project (The Farm in Poway LLC 2020), the purpose of which is to develop a link between implementing policies of the Poway Comprehensive Plan: General Plan (General Plan) (City of Poway 1991) and the individual development proposals in a defined area. As required by Government Code Section 65450 et seq., the Specific Plan contains land uses and development regulations that plans to serve regional housing needs through infrastructure requirements, including single-family housing; maintain the City's extensive open space areas, proximity to jobs and services, and school district rating, through implementation measures for the development of a specific geographic area—in this instance, that area is referred to as the project site or Specific Plan area.

The proposed project seeks to implement the recommendations of the proposed Specific Plan. These provisions require that a specific plan be consistent with the adopted general plan. The City has responded to this mandate by adopting Specific Plan policies and objectives for the proposed project. The City will consider the Specific Plan policies and objectives when evaluating the alternatives presented in this EIR. Please refer to Chapter 3 for further details regarding the components of the proposed project.

2.1 Purpose and Intended Uses

2.1.1 EIR Purpose

This EIR seeks to do the following:

- Inform governmental decision makers and the general public of the potentially significant environmental effects of the proposed project.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Reduce environmental impacts by identifying changes in the proposed project through the use of alternatives or mitigation measures.
- Streamline environmental review for subsequent projects consistent with the project.

2.1.2 Intended Use of the EIR

The EIR is an informational document that will provide decision makers, responsible or trustee agencies (as defined under CEQA), other interested public agencies or jurisdictions, and members of the public with information about (1) the potential for significant adverse environmental impacts that would result from the development of the proposed project, (2) possible ways to minimize any significant environmental impacts, and (3) feasible alternatives to the proposed project (PRC Section 21002.1[a]; 14 CCR Section 15121[a]). Responsible Agencies will use this EIR to fulfill their legal authority to issue permits for the proposed project.

The City is the Lead Agency for the EIR and will perform the entitlement processing of the proposed project. When deciding whether to approve the proposed project, the City will use the information in this EIR to consider potential impacts to the physical environment associated with the proposed project. Subsequent to the certification of the Final EIR, agencies with permitting authority over all or portions of the proposed project will use the Final EIR as the basis for their evaluation of the environmental effects related to the proposed project that will culminate with the approval or denial of applicable permits.

This EIR evaluates the potential environmental impacts of the proposed project. This EIR evaluates all elements of the proposed project, including the construction (short-term) and operational (long-term) impacts associated with its development. General Development Plans will be developed over time and will provide precise engineering and construction plans for the housing and recreational elements included in the proposed project. These plans are currently not available; however, their environmental impacts can be estimated and a mitigation strategy developed that would apply to future improvements. When the General Development Plans are available for all or portions of the proposed project area, the City will evaluate these detailed plans against this EIR, and determine if the mitigation is adequate or if additional mitigation is warranted. Pursuant to CEQA Guidelines Section 15162 and 15168(c)(2), when examining future development actions within the proposed project area, if the City finds no new effects could occur or no new mitigation measures would be required other than those analyzed and/or required in this EIR, the City can approve the activity as covered under this EIR without additional environmental documentation. If additional analysis is required, it can be streamlined by tiering from this EIR pursuant to CEQA Guidelines Sections 15152, 15153, and 15168 (e.g., through preparation of a Mitigated Negative Declaration, Addendum, or Supplemental or Subsequent EIR).

2.2 EIR Legal Authority

2.2.1 Lead Agency

The City is the Lead Agency, defined in CEQA Guidelines Sections 15050 and 15367 as the "public agency which has the principal responsibility for carrying out or approving a project." This EIR is intended to analyze the environmental impacts associated with the discretionary actions that require ultimate approval by the Poway City Council and further by the voters of the City of Poway through a general or special election.

2.2.2 Responsible and Trustee Agencies

Responsible agencies have discretionary approval over one or more actions involved with development of the proposed project, and responsible and trustee agencies are state agencies with discretionary approval or jurisdiction by law over natural resources, which may be impacted. Table 3-1, Proposed Discretionary Approvals and Permits, in Chapter 3 lists all approvals (e.g., permits, financing approvals, or participation agreements) that are expected to be required from the City and other public agencies. Trustee agencies are defined in Section 15386 of the CEQA Guidelines as agencies that have jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California, including the California State Lands Commission; University of California, San Diego; California Department of Fish and Wildlife; and California Department of Parks and Recreation.

2.3 EIR Type, Scope and Content, and Format

2.3.1 Type of EIR

This EIR has been prepared as a project EIR, as defined in Section 15161 of the CEQA Guidelines. In accordance with CEQA, this EIR examines the environmental impacts of the proposed project, which is composed of a series of actions. The combined actions can be characterized as one large project for the purpose of this study and are herein referred to as the "proposed project." The EIR focuses primarily on the physical changes in the environment that would result from the adoption and implementation of the proposed project, and other related actions described more fully in Chapter 3, including anticipated impacts that could result during future construction and operation.

2.3.2 EIR Scope and Content

The scope of analysis for this EIR was determined by the City as a result of initial project review and consideration of comments received in response to the Notice of Preparation circulated June 10, 2019, and a scoping meeting held on Thursday, May 23, 2019, at the City of Poway City Council Chambers located at 13325 Civic Center Drive, Poway. The Notice of Preparation and public comments received are included as Appendix A of this EIR. Through these scoping activities, the proposed project was determined to have the potential to result in significant environmental impacts to the following subject areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Services Systems
- Wildfire

The intent of this EIR is to determine whether implementation of the proposed project would have a significant effect on the environment through analysis of the issues identified during the scoping process. Each environmental issue area includes the following: a presentation of the threshold(s) of significance for the particular issue area under evaluation based on CEQA's Significance Determination Thresholds; 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, as appropriate. Pursuant to CEQA Guidelines Section 15126, all discretionary actions associated with the proposed project are considered in this EIR when evaluating its potential impacts on the environment, including the construction of future development and operational phases. Impacts are identified as direct or indirect, short term or long term, and assessed on a plan-to-ground basis. The plan-to-ground analysis addresses the changes or impacts that would result from implementation of the proposed project compared to existing ground conditions.

2.3.3 EIR Format

Organization

The following is brief overview of the various chapters of this EIR:

- **Chapter 1, Executive Summary.** This chapter provides a summary of the EIR; a brief description of the proposed project; an identification of areas of controversy; and a summary table identifying significant impacts, proposed mitigation measures, and the significance of impact after mitigation. A summary of the proposed project alternatives and a comparison of the potential impacts of the alternatives with those of the proposed project are also provided.
- **Chapter 2, Introduction.** This chapter contains an overview of the legal authority, purpose, and intended uses of the EIR, as well as its scope and content. It also provides a discussion of the CEQA environmental review process, including public involvement.
- **Chapter 3, Project Description.** Provides a detailed discussion of the proposed project, including background, objectives, and key features.
- **Chapter 4, Environmental Analysis.** This chapter provides a detailed evaluation of the potential environmental impacts associated with the proposed project for environmental and land use issues. The analysis of each issue begins with a discussion of the existing conditions, regulatory framework, and a statement of the specific thresholds used to determine the significance of impacts, followed by an evaluation of potential impacts and identification of specific mitigation measures to avoid or reduce significant impacts (if any). A statement regarding the significance of the impact after mitigation is also provided.
- **Chapter 5, Other CEQA Considerations.** This chapter evaluates the potential influence the proposed project may have on economic or population growth within the project vicinity and the region, either directly or indirectly. It identifies all of the issues determined in the scoping and preliminary environmental review process to not be significant, and briefly summarizes the basis for these determinations. It also identifies impacts that are significant and unavoidable, or irreversible, as well as describes mandatory findings of significance.
- **Chapter 6, Alternatives.** This chapter provides a description of the alternatives to the proposed project, including the No Project/No Build Alternative.
- **Chapter 7, References Cited.** This chapter lists all of the references cited in the EIR.
- **Chapter 8, Individuals Consulted/Preparers.** This chapter provides identifies all of the agencies, organizations, and individuals responsible for the preparation of the EIR.

Technical Appendices

Technical reports, used as a basis for much of the environmental analysis in the EIR, have been summarized in the EIR, and are included as appendices to this EIR. The technical reports prepared for the proposed project and their location in the EIR are listed in the table of contents.

Incorporation by Reference

As permitted by CEQA Guidelines Section 15150, this EIR references several technical studies and reports. Information from these documents is briefly summarized in this EIR, and their relationship to this EIR is described in the respective chapters. All reference materials are included in Chapter 7, and are hereby incorporated by reference.

2.4 EIR Process

The City, as Lead Agency, is responsible for the preparation and review of this EIR. The EIR review process occurs in two basic stages. The first stage is the Draft EIR, which offers the public the opportunity to comment on the document, and the second stage is the Final EIR.

2.4.1 Draft EIR

In accordance with CEQA Guidelines Section 15105, the Draft EIR 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" (14 CCR 15204). In accordance with CEQA Guidelines Sections 15085 and 15087 (a) (1), upon completion of the Draft EIR, a Notice of Completion will be filed with the State Office of Planning and Research and a Notice of Availability of the Draft EIR will be issued in a newspaper of general circulation in the area.

2.4.2 Final EIR

Comments addressing the scope and adequacy of the environmental analysis will be solicited during the Draft EIR public review. Following the end of the public review period, the City, as the Lead Agency, will provide written responses to comments received on the Draft EIR per CEQA Guidelines Section 15088. All comments and responses will be considered in the review of the EIR. Detailed responses to the comments received during public review, a Mitigation Monitoring and Reporting Program, Findings of Fact, and a Statement of Overriding Considerations for impacts identified in the Draft EIR as significant and unmitigable will be prepared and compiled as part of the EIR finalization process. The Final EIR will be available for public review at least 14 days before the City Council hearing in order to provide commenters the opportunity to review the written responses to their comment letters. The culmination of this process is a public hearing where the City Council will determine whether to certify the Final EIR and adopt the Mitigation Monitoring and Reporting Program, Findings of Fact, and Statement of Overriding Considerations as being complete and in accordance with CEQA.

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3 Project Description

This chapter describes The Farm in Poway project (proposed project). As required by Section 15124 of the California Environmental Quality Act (CEQA) Guidelines, this chapter contains the precise location and boundaries of the proposed project; a statement of objectives sought by the proposed project; a general description of the proposed project's technical, economic, and environmental characteristics and its environmental setting; and a statement briefly describing the intended uses of the Environmental Impact Report (EIR). Consistent with Section 15124 of the CEQA Guidelines, this chapter also includes, to the extent known, a list of the agencies expected to use the EIR in their decision making, and a list of permits and other approvals required to implement the proposed project.

3.1 Project Objectives

Section 15124(b) of the CEQA Guidelines requires an EIR to include a statement of objectives sought by a project. The objectives assist the City of Poway (City), as lead agency, in developing a reasonable range of alternatives to the proposed project to be evaluated in the EIR. The project objectives also assist the decision makers in preparing findings or, if necessary, a statement of overriding considerations. The statement of objectives should also include the underlying purpose of a project.

The proposed project includes the adoption of a new specific plan—the Farm in Poway Specific Plan (Specific Plan) (The Farm in Poway LLC 2020)—the purpose of which is to establish a link between implementing policies of the general plan and the individual development proposals in a defined area. As required by Government Code Section 65450 et seq., the Specific Plan contains land uses and development regulations, infrastructure requirements, and implementation measures for the development of a specific geographic area; in this instance, it is referred to as the project site or Specific Plan area. These provisions require that a specific plan be consistent with the adopted general plan. The City has responded to this mandate by adopting Specific Plan policies and objectives for the proposed project. The City will consider the Specific Plan policies and objectives when evaluating the alternatives presented in this EIR.

The underlying purpose of the proposed project is to revitalize the decommissioned StoneRidge Country Club and associated 18-hole golf course through the development of a new community with unique homes and interrelated open space, recreation, and commercial amenities on approximately 117.2 acres in the City of Poway. Project implementation would be guided by the following statement of project objectives (The Farm in Poway LLC 2020):

1. Preserve over 47 percent of the Specific Plan area as permanent open space by allowing for the development of an environmentally-friendly conservation community, which can provide a mechanism for financing the long-term maintenance and management of open space as a community amenity.
2. Assist the City in implementing the General Plan's housing goals by providing opportunities for high quality new housing to meet the needs of current and future Poway residents.
3. Provide for 160 homes with a range of housing types that are compatible with the adjacent established residential community.
4. Replace dead and dying vegetation associated with the vacant and blighted golf course with new agricultural uses and naturalized landscaping, thereby restoring the visual character of the neighborhood.
5. Restore the recreational opportunities previously provided by the golf course with a wide range of recreational, educational, and social uses that meet the demands and lifestyles of new and existing residents.

6. Ensure new uses are compatible with new and existing homes by establishing setbacks, design regulations and guidelines, best practices, and performance standards that protect the privacy and quality of life for neighboring properties.
7. Create an internal network of roadways that minimize vehicle traffic impacts to existing neighborhoods and discourage cut-through vehicle traffic.
8. Design narrow, curvilinear, and landscaped roadways that promote low speeds and support safety and comfort for multiple modes of transportation including vehicles, alternative vehicles, pedestrians, bicyclists and equestrians.
9. Establish a multi-use trail system for pedestrians, bicyclists, and equestrians with connections to major amenities and adjacent neighborhoods.
10. Minimize the environmental impact of new development through best management and low impact development practices, water and energy conservation measures, and green construction.

3.2 Project Description

3.2.1 Project Components

The proposed project is approximately 117.2 acres and includes a total of 160 single-family homes and a mix of open space and recreational uses (see Figure 1-1, Site Plan). Accessory dwelling units are permissible on detached single-family residences as required by state law. Residential land uses would compose approximately 33.85 acres and would range in density from 2.5 to 10.7 dwelling units per acre with an overall density of 1.4 dwelling units per acre. Open space and recreational uses would compose approximately 70.37 acres and would be comprised of Open Space – Conservation (OS-C) and Open Space – Recreational (OS-R). Approximately 12.96 acres would be private streets. The proposed project is located in the northern portion of the City, approximately two miles east of Interstate 15 (I-15) and bordering Espola Road to the south.

The new land uses proposed by the Specific Plan include two open space uses, which would both be permanently preserved as open space through deed restriction. A specific plan amendment to revise the open space designation can only be conducted through a simple majority approval by the voters of the City at a special or general election (subject to Proposition FF voting requirements for open space)—as designated in the Specific Plan—and is required for future increases in density and intensity as incorporated into the Poway Municipal Code by ordinance. Five residential land uses are also proposed. The proposed land uses are described below (The Farm in Poway LLC 2020):

- ***Open Space – Conservation (OS-C)*** is designed to serve as a physical and visual buffer between existing residential uses and new residential development, maintaining neighbors' privacy and providing the visual backdrop for the new community. Parcels designated as OS-C shall be deed-restricted to ensure that they are preserved as open space in perpetuity. Parcels designated as OS-C may be planted with landscape, agriculture or naturalized drought-tolerant landscaping and may include trails, gardens, water quality basins, and tot lots. Thematic structures and buildings as well as accessory buildings such as sheds, greenhouses, and similar that are ancillary to agricultural and garden uses would also be permitted with a maximum building coverage of 15 percent. Trails, tot lots, exercise stations, specialty gardens, and events and retail sales associated with agricultural uses are permissible.
- ***Open Space – Recreation (OS-R)*** is intended to replace the recreational amenities once provided by the golf course to support new and existing residential uses within and around the project site. Up to 30,000 gross square feet of non-residential buildings would be permitted. Uses may consist of educational, social

and recreational uses such as event barns, social clubs, fitness clubs, restaurants including brewpubs and winebars, boutique retailers, bed and breakfast or boutique hotel, classrooms, a butterfly vivarium, educational greenhouses, and similar facilities. Outdoor dining, a small grass amphitheater for outdoor performances, athletic fields/courts, swimming pools, parks, a dog park, trails, events, and other outdoor land uses are also permissible. The mix of uses (including all residential and non-residential uses) within the Specific Plan area shall not exceed 2,524 New Net Average Daily Trips using rates in SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.

- ***Residential – Twin (R-T):*** Allows for the development of up to 22 twin homes. Each unit would be situated on its own lot and units are connected along a common interior property line.
- ***Residential – Cottage (R-C):*** Allows for the development of up to 90 detached single-family homes. Residential cottage homes would consist of 2–4 single-family homes arranged around a common motor court space. Individual driveways and garages would take access from the motor court. Accessory dwelling units are permissible as required by state law.
- ***Residential – Garden (R-G):*** Allows for the development of up to 13 detached single-family homes. Residential garden homes are single-family homes that take direct access from a private street. The minimum lot width for garden homes is 70 feet. Accessory dwelling units are permissible as required by state law.
- ***Residential – Homestead (R-H):*** Allows for the development of up to 20 detached single-family homes. Residential homestead lots would consist of single-family homes that take direct access from a private street or existing public street, and are located in the Very High Fire Hazard Severity Zone. Accessory dwelling units are permissible as required by state law.
- ***Residential – Meadow (R-M):*** Allows for the development of up to 15 detached single-family homes. Residential meadow homes would be large single-family homes that take direct access from a private street. Accessory dwelling units are permissible as required by state law.

Open Space Land Use Districts

The approximately 70.37 acres of open space would consist of 55.72 acres of OS-C and 14.65 acres of OS-R. Agricultural amenities permitted on OS-C land would include agriculture and horticulture, barns, greenhouses, and similar accessory structures ancillary to agriculture, beekeeping, specialty community gardens, farm stands, outdoor farmers markets, and incidental sales of plants or produce generated within the project site. Some recreational amenities would also be permitted within OS-C land, including picnic pavilions, playgrounds and tot-lots; trails for walking and biking; and trail amenities such as benches, signage, and kiosks. Events such as community harvesting and planting, pick-your-own, educational tours, and similar are also permitted.

However, recreational amenities would primarily be located within OS-R land. In addition to the above listed recreational amenities permitted within OS-C land, OS-R land would also permit athletic fields/recreational courts, dog parks, open play fields and parks, a small outdoor amphitheater, and recreational clubs including but not limited to swim, tennis, and fitness. As shown on Figure 3-1, Land Use Plan, these recreational amenities would be divided into The Club, The Meadow, and The Farm.

The Club

The Club would be located towards the middle of the project site, north of the R-C residential district (see Figure 3-1). The Club would include a fitness center operated by a recreational management firm that would be available to residents of the proposed project and members of the surrounding communities on a membership basis. In addition to the fitness center, recreational amenities at The Club are anticipated to include amenities such as tennis courts, pickle ball courts, swimming pools, various community rooms and related land uses. Parking facilities would also be included for visitors of The Club. Parking facilities and the majority of the tennis courts would be screened from adjacent residences by a sound wall that may be further screened with trees, shrubs, and vines. The community trail, as described below, would be directly accessible from The Club.

The Meadow and Dog Park

The Meadow and Dog Park would be located directly adjacent to the east of The Club. The Meadow would include a small grass amphitheater or outdoor performance space, large passive turf areas, picnicking facilities, and large shade trees. The outdoor performance space may also be available for use by local community groups for concerts in the park or similar events. Events would be open to the public, but coordinated by the Community Association. The dog park would be open to the public, and would include an enclosed space for off-leash dog play, benches, and a drinking fountain with dog bowl.

The Farm (The Event Barn and Education Center)

The Farm, referred to herein as The Event Barn and/or Education Center, would be located at the southernmost portion of the project site, adjacent to Espola Road and at the proposed entrance of the project site at the intersection of Espola Road and Martincoit Road (see Figure 3-1). The Education Center would include a vivarium, a greenhouse, office/maintenance space, a classroom, a garden, and a picnic area. The Barn would include a multi-purpose event venue, a café, and a wine and beer garden. Regulations regarding the type of events and hours of operation are provided in the Specific Plan (see Section 3.2.3[b]) (The Farm in Poway LLC 2020). In summary, regular events would include weddings, parties, theatrical performances, farmers markets, art exhibits, craft fairs, food festivals, charitable donation events and similar events (The Farm in Poway LLC 2020). Special events would also be permitted and would include outdoor weddings, parties, theatrical performances, concerts, art exhibits, craft fairs, and food festivals; refer to the Specific Plan for further details (The Farm in Poway LLC 2020).

The Working Farm (Agrifields)

The Working Farm would be composed of agrifields located at the northernmost portion of the project site, along the northwestern and northern project boundaries (see Figure 1-1). The Working Farm may include an iconic barn for a farm operations office and equipment and material storage. Agricultural areas would be managed and leased to one or more professional farmers or farming entities who will operate agricultural uses on behalf of the property owner and shall be subject to Community Association Covenants, Conditions, and Restrictions. Agriculture, horticulture, and garden uses would include the cultivation and harvesting of ornamental plants and flowers, herbs and medicinal plants, with the exception of Cannabis, of which the cultivation, delivery, and sale would be prohibited. Plants would be grown on the ground, in planting beds, in vertical structures, inside greenhouses, in aquaponics ponds, or in other configurations. The Working Farm would be screened from

residences by a minimum 10-foot-wide landscape buffer and structures, storage areas, and staging areas of the Working Farm would be at least 50 feet from adjacent residential property. Farm operations hours would be limited, and equipment would meet noise guidelines as regulated by the City.

On-site commercial processing and packaging of any agricultural product would not be permitted; however, farm stands, outdoor farmers markets, and incidental sales of plants or produce generated from within the project site would be a permitted use in both the OS-C and OS-R land use designations. Integrated Pest Management will be the preferred method for pest control; however, limited use of pesticides may be permitted based upon the type of chemical, method of application, and its compatibility with adjacent residential uses in accordance with permits issued by, or regulations enforced by the County of San Diego (County) Department of Agriculture.

Community Gardens

Community gardens would be located throughout the project site, providing future residents a garden plot within walking distance of their home. The community gardens would include planting beds and water and support facilities to grow fruits and vegetables. Residents would sign up to use gardening plots and would be responsible for the maintenance and harvesting of their plots; the Community Association will contract with a professional community garden manager to maintain garden common areas and vacant plots to ensure they remain visually attractive and free of pests and debris. Small tool sheds would store the tools and materials required to maintain the community gardens. Gardens would be surrounded by drought-tolerant landscaping comprised of edible plants, pollinator plants, succulents, and native vegetation.

Trail System

A multi-use trail system, as illustrated in Figure 3-2, Conceptual Trail Network, would circulate throughout the project site to provide mobility and recreational opportunities for pedestrians, equestrians, and bicyclists. The majority of the trail system would include decomposed granite or compacted earth trails with some concrete trails primarily along the southern project boundary. Trails would connect to sidewalks along the proposed on-site roadways and along existing adjacent residential streets to maximize access and connectivity. Bike racks, a trail map and rules kiosk, and a bike repair station will be located at the Club. Trails would range from six to 15 feet in width and all trails would be open to the public.

Residential Land Use Districts

Residential land uses would be divided into five land use districts (R-T, R-C, R-G, R-H, and R-M, as described above), and would compose approximately 33.85 acres ranging in density from 2.5 to 10.7 dwelling units per acre. The proposed project would allow for up to 160 single-family homes with a 35-foot maximum height limit. All residences would include a minimum of two side-by-side garage spaces, in addition to driveway parking space.

Maintenance and operation of the community would be financed through a Master Community Association that would be responsible for all private streets, private utilities, and common amenities, as well as for the long-term maintenance and preservation of open space resources on the project site including the trail system. The Community Association would also be required to contract with qualified professionals for the long-term care and maintenance of the bioretention basins and fuel modification zones, which are described in more detail below. The Community Association would also be responsible for enforcement of the Community Association's Covenants, Conditions, and Restrictions to ensure compliance with the Specific Plan. Accessory dwelling units are permissible as required by state law.

Project Approvals

The proposed project consists of the following entitlements and agency approvals, which would be processed concurrently unless otherwise noted:

- General Plan amendment
- Zoning amendment
- Specific Plan
- Development Plan
- Tentative map
- Conditional Use Permit
- EIR certification

Project Infrastructure

The project site is surrounded by existing development, primarily residential land uses, with existing infrastructure. Any proposed new infrastructure needed to serve the proposed project would be connected to existing infrastructure, which consists of vehicular access and circulation, water, sewer, drainage, and dry utilities such as gas, electricity, and telecommunications. Some water and sewer infrastructure would be extended within the project site as described below under Project Water System and Project Wastewater System. Additionally, Martincoit Road would be extended north and improvements to Espola Road would occur as described below under Project Circulation. Some existing infrastructure may also need to be relocated or replaced.

Project Circulation

The proposed project's circulation system is designed to interconnect with the existing adjacent public street system and deter cut-through automobile traffic. Primary vehicular access to the project site would be provided via an improved signalized intersection at Espola Road and Martincoit Road. Improvements to this existing three-way signalized intersection would include extension of Martincoit Road to the north, improved traffic signals, and additional crosswalks (see Figure 3-3, Martincoit Road and Espola Road Intersection Improvements). Secondary access to the project site would be provided via two stop-sign-controlled intersections: one along Tam O'Shanter, near the middle of the project site, and one along Boca Raton Lane, near the northeastern boundary of the project site. See Figure 3-4, Conceptual Street Network, for proposed roadway classifications and project circulation plan.

Twelve of the newly proposed single-family homes would take direct access from Boca Raton Lane and St. Andrews Drive. Two emergency vehicle access (EVA) points would also be provided (See Figure 3-4). One EVA would take direct access from Cloudcroft Drive, and the second would take access from Cloudcroft Court, via Cloudcroft Drive. The Cloudcroft Court EVA point would also provide maintenance access for the San Diego County Water Authority (SDCWA) right-of-way (ROW). The EVA points would be controlled by bollards to prevent public access and allow pedestrian access.

Improvements to Espola Road would also occur. Espola Road will continue to provide three to four travel lanes and a two-way center turn lane. The existing shoulders used for bicycles do not meet Class II standards; therefore, the roadway would be widened by three feet on the north side to accommodate a Class II bike lane. Improvements would also be made to the existing San Diego Metropolitan Transit System Route 945A bus stop

located at Espola Road and Martincoit Road. Approaching the intersection to the proposed project's main entry at Martincoit Road, the two-way turn lane would be restriped to transition to a painted left-turn lane in both directions. A five-foot-wide landscaped parkway strip and a six-foot-wide concrete sidewalk will also be constructed on the north side of the Espola Road ROW fronting the project site. North of the ROW a meandering nine-foot-wide concrete community trail will be provided. Additional landscaped areas would be provided between the sidewalk and community trail and between the community trail and any proposed structures to comply with the intent of the Poway Comprehensive Plan: General Plan (General Plan), which designates Espola Road as a scenic roadway requiring a landscaped open space easement of 50 feet from the ultimate ROW (City of Poway 1991). See Figure 3-4 and Figure 3-5, Espola Road Improvements. In addition to sidewalks, circulation would be provided through the proposed trail system for pedestrians, equestrians, and bicyclists, as previously described.

The proposed project's internal street network would consist of all private streets. Roadways would be designed as Complete Streets that accommodate automobiles, bicycles, pedestrians, tractors, low-speed vehicles, and neighborhood electric vehicles. Internal roadways would consist of private streets and drives with and without parking. All private streets, except those accessing motor courts, would include a sidewalk along one side separated from the roadway by a five-foot-wide landscaped parkway. Motor courts would also be provided as a shared driveway (technically a private street) for two or more of the R-C-designated homes and these common access roads would provide access from the motor court to on-street parking areas.

Project Parking

The proposed project would provide adequate parking within the project site to minimize impacts to existing residential streets in the vicinity and all parking would comply with the requirements of the City of Poway Municipal Code unless otherwise specified within the Specific Plan. Each residential unit would include a minimum of a two-car garage and two additional uncovered driveway spaces. Some residential units would include a three-car garage and additional driveway spaces. On-street parking would also be provided throughout the project site to serve as additional guest parking for residents and overflow parking for on-site recreational uses. Non-residential off-street parking lots would be provided for non-residential uses within the project site, including the recreational amenities, assembly spaces, and eating/drinking establishments. Regulations regarding proposed project parking, including number of parking spaces, parking space dimensions, and permitted use of parking spaces, are provided in the Specific Plan (The Farm in Poway LLC 2020).

Project Water System

The City's Public Works Department would provide domestic water to the proposed project. The SDCWA provides 99 percent of the City's water in the form of untreated water, with the remaining demand met through recycled water purchased from the City of San Diego. All imported water is treated locally at the City's water treatment plant and then distributed via a complex and comprehensive system of pumps and pipes.

A series of regional SDCWA pipelines are located within and adjacent to the project site including the Ramona pipeline—a 38-inch pipeline located in Espola Road—and two parallel pipelines located in an existing ROW that runs diagonally through the site. These pipelines would be protected in place and uses have been restricted within the SDCWA ROW that runs through the project site to ensure the long-term protection of these pipelines.

The proposed water system consists of a series of 12-inch pipes to create a looped system that would serve all properties within the project site. Portions of the existing pipes would be removed based upon rerouting of water distribution through the project site such that any existing loops in the system that serve the adjacent properties are maintained. Lots facing St. Andrews Drive and Boca Raton Lane would connect directly into

existing pipes within these streets. The proposed project conceptual water master plan is illustrated in Figure 3-6, Conceptual Water Master Plan.

Project Wastewater System

The proposed project would connect to the City's sewer system. Wastewater collection and the City's sewage system are maintained and operated by the City's Public Works Department to ensure sufficient capacity is available for dry weather peak-flow conditions and storm or wet weather events. Wastewater collected in the City's sewage system is conveyed through the City of San Diego's Municipal Wastewater System to the City of Escondido's Hale Avenue Resource Recovery Facility for treatment and disposal, and the Metro System for treatment at either the North City Water Reclamation Plant or the Point Loma Wastewater Treatment Plant.

Existing sewer facilities pertinent to the proposed project consist of local gravity sewer lines and the Saint Andrews Lift Station (Lift Station No. 2) and force main, which is located off site at the northern boundary of the proposed project. The existing eight-inch gravity sewer lines surrounding and traversing the project site serve the existing adjacent development. Flows from these existing eight-inch gravity sewer lines are either conveyed north to the Saint Andrews Lift Station or south to an existing 12-inch line in Martincoit Road that was recently upgraded by the City as part of a capital improvements project. Flows reaching the lift station are subsequently pumped south by the force main via a four-inch PVC line, through the project site, and into Tam O'Shanter Drive. Ultimately all flows are conveyed to the 12-inch line in Martincoit Road (see Appendix G, Priority Development Project–Stormwater Quality Management Plan).

The proposed project would construct new eight-inch gravity sewer lines to connect the project site to the existing gravity sewer system, with the exception of four residential lots located in the northeast corner of the project site, which cannot currently flow by gravity north or south to connect to the existing sewer system. These lots would be served by one of two options:

1. Installing a gravity flow sewer to the east and connecting to the existing system located in Indian Canyon Lane, which is associated with Old Coach Estates.
2. Construction of private individual grinder pump systems. Each lot would require a grinder pump force main to convey flows northerly to the existing gravity sewer system on St. Andrews Drive.

The proposed project's sewer system is included as Figure 3-7, Conceptual Sewer Master Plan.

Project Drainage System

The project site drains in a general southern direction with the exception of the northern portion of the site, which drains north. The project site currently has three total concrete brow ditches that convey on-site and off-site flows to two separate outflow locations, one to the north and one to the south. Northern flows eventually drain into Sycamore Creek and southern flows eventually drain into the Los Penasquitos (906) watershed.

Figure 3-8, Conceptual Drainage Plan, illustrates the proposed grading and drainage concept for the proposed project. Grading of the project site respects the existing topography to the extent feasible and adheres to the City of Poway Municipal Code Grading Standards. Grading for the project site is balanced at 508,900 cubic yards of cut and fill to avoid export or import of dirt. As shown in Figure 3-8, the project site currently accepts stormwater drainage from a number of adjoining properties. To maintain these existing drainage patterns and minimize drainage impacts to existing neighborhoods, a series of public bypass storm drains would be provided to collect

this stormwater at the project site boundary and convey it through the site to the City's existing storm drain system downstream.

The proposed project's grading plan would drain all stormwater within the project site to swales that convey water to private streets on site. Once in the street, stormwater is collected by catch basins and a private system of pipes on site. These pipes then convey water to a series of bioretention basins that would release stormwater into the City's existing system via the bypass storm drains described above or via existing ditches, channels, or pipes located adjacent to the project site.

Project Dry Utilities

Electrical power and natural gas would be provided by San Diego Gas & Electric. No major improvements to the local distribution networks would be needed to support the growth facilitated by the proposed project. The applicant will work with dry utility providers to ensure utility systems have adequate capacity to serve future residential and commercial uses.

New development within the project site would be required to meet the requirements of the California Energy Code (Title 24) and the California Green Building Standards, which include the most stringent requirements for energy conservation in the country. To meet these requirements, all new development within the project site would include rooftop photovoltaic solar panels, energy-efficient lighting and appliances, cool roofs, energy-efficient windows, and other design features that significantly conserve energy. Telephone, cable TV, and internet service would be available from a variety of providers.

Off-Site Improvements

Minor off-site improvements would be needed to connect the project site to the existing circulation system, namely the expansion of the Espola Road and Martincoit intersection. Minor off-site utility improvements may also consist of making connections to the adjacent existing water, wastewater, drainage, natural gas, electric, and telecommunication systems. Additionally, off-site utility improvements include a gravity sewer line connection alternative that starts in Boca Raton Lane, then heads south within the paved 60-foot public ROW, then turns east within the paved 60-foot public ROW of Indian Canyon Lane, and then turns north within the 42-foot paved private street (Butterfield Trail) to the public sewer connection.

Off-site roadway improvements include the expansion of Espola Road/Martincoit Road to a signalized four-way intersection, the provision of a pedestrian crossing on the west leg of the intersection with an enhanced crosswalk for high visibility, pedestrian signals with countdown timers, leading pedestrian interval timing, ADA compliant curb ramps, bicycle signal detection, and smart adaptive signals that can adjust signal phasing and extent pedestrian walk times based upon time of day. These same mobility features are also recommended at the Valle Verde Road/Espola Road intersection. Similarly, high visibility crosswalk and ADA complaint ramps would be installed at the intersection of Valle Verde Road/St. Andrews Drive. In addition, the missing connection of the 5-feet of contiguous sidewalk along the east side of Valle Verde Road, approximately 350 feet north of Edina Way to Solera Way, would be constructed to provide continuous sidewalk.

Additional off-site roadway improvements would include improvements to the existing San Diego Metropolitan Transit System bus stop at this intersection; various improvements to Espola Road including the widening of the right-of-way by three feet on the north side to accommodate a standard Class II bike lane; and the development of two secondary access points with stop-sign-controlled intersections located along Boca Raton Lane, one near the

middle of the project site and one near the northeast corner of the project site. The proposed project would also include two EVA points, with one located along Cloudcroft Drive and the other along Cloudcroft Court at the SDCWA easement.

Construction and Phasing

The proposed project would be developed in phases (from south to north). Construction is anticipated to begin in 2021 and end in 2024.

3.2.2 General Plan and Zoning Amendments

The existing General Plan Land Use and Zoning Map designates the entire project site as "Open Space – Recreation (OS-R)" (City of Poway 1991). A General Plan amendment and zoning amendment would be processed concurrently with the Specific Plan to designate the project site as "Planned Community (PC-9)." The amendment consists of both a map amendment and a zoning text amendments. Currently, the Planned Community (PC) zone may only be applied to properties 300 acres or larger. The proposed text amendment would revise this portion of the text to allow this project site of approximately 117.2 acres to be zoned as PC and would also require increases in residential density or intensity of land uses to be approved by the voters of the City at a special or general election. In addition, a new section would be added to the Zoning Ordinance that briefly describes the Farm in Poway Planned Community. This designation and zoning would be consistent with other specific plan areas throughout the City.

3.2.3 Specific Plan

Government Code Section 65453(a) authorizes local jurisdictions to adopt specific plans as a tool for the systematic implementation of the general plan. A specific plan must be consistent with the adopted general plan, but can provide a unique set of land uses, design regulations, and development standards not permitted under a city's existing zoning or by a city's current standards. By allowing greater flexibility, development patterns can be specifically tailored to the characteristics of a site, including creative design concepts, density ranges that differ from a city's zoning code, specially designed roadways, and a mix of uses unique to the specific plan area. Specific plans may be adopted, in whole or in part, by either resolution or by ordinance. The Farm in Poway Specific Plan would be adopted by resolution and ordinance. All development and improvements constructed within the Specific Plan area would be required to be consistent with the City's General Plan, the Specific Plan, and the tentative map(s).

3.2.4 Tentative Map

The proposed project includes a tentative subdivision map. The map depicts the grading and drainage, individual residential lots, common ownership lots, public streets, private streets, and infrastructure improvements. The map would be submitted concurrently with the Specific Plan. One or more final subdivision map(s) would be recorded.

3.2.5 Project Design Features (PDFs)

As identified in Section 4.15, Transportation, the proposed project would implement transportation project design features (PDFs) (**PDF-TRA-1** through **PDF-TRA-6**) in order to improve intersection traffic, pedestrian mobility, bicycle mobility, and site access.

Additionally, as described in Section 4.2, Air Quality, the proposed project would implement one air quality PDF (**PDF-AQ-1**), which would ensure that active sites be watered at least three times daily, a soil stabilizer be used, and unpaved road travel be limited to 15 miles per hour, in order to restrict emissions of fugitive dust.

3.3 Project Location

The project site is located in the northern portion of the City and consists of the decommissioned StoneRidge Country Club and associated 18-hole golf course. The project site is bordered by Espola Road to the south; St. Andrews Drive to the north and west; and Cloudcroft Drive, Tam O'Shanter Drive, and Boca Raton Lane to the east. The project site consists of approximately 117.2 acres and currently has an address of 17166 Stoneridge Country Club Lane, Poway, California 92064. Figure 3-9, Project Location, shows the location of the project site within the County and the City. Figure 1-2, Project Site Vicinity and Aerial Map, depicts an aerial view of the project site vicinity.

3.4 Environmental Setting

The general environmental setting for the project area is provided in this section, in conformance with Section 15125 of the CEQA Guidelines. Currently, the project site is a former 18-hole golf course surrounded by existing residential development. The StoneRidge County Club and golf course are no longer active, and the site is currently characterized by disturbed, fallow land. Surrounding land uses include residential development in all directions (Figure 3-10, Surrounding Land Uses). As a result, the site is subject to a number of previous and ongoing anthropogenic disturbances that include pedestrian use, domestic pet use (i.e., dogs and cats), invasive species, and regular night lighting and noise. The hydrology and vegetation composition of the site has changed dramatically since the golf course operations have ceased. A 100-foot defensible space barrier adjacent to surrounding structures requires weeds to be maintained at six inches or below, but the remaining site experiences overgrowth of weed and existing plant materials. Trees determined to be dead or hazardous are required to be removed. More detailed descriptions regarding specific environmental conditions are found at the beginning of each section in Chapter 4, Environmental Analysis.

3.4.1 Regional Context

Regionally, the City is situated near the middle of the County, approximately 20 miles north of downtown San Diego via I-15. The project site is approximately two miles east of I-15. The City boundary is approximately one-half mile west of the project site. I-15 runs generally parallel to the City's western border and provides connections to San Diego and Riverside Counties.

3.4.2 Surrounding Environment

The surrounding residential development consists of mostly single-family homes. Some multi-family homes exist west of the middle of the project site, along Port Marnock Drive, and surrounded by the project site along Villamoura Drive and Valle De Lobo Drive. Planned community projects exist to the east of the project site and open space designated for resource management exists southeast of the project site. The rest of the project site is surrounded by residential uses varying in density, but mostly consists of single-family residences.

3.5 Intended Uses of the EIR

In accordance with CEQA Guidelines Sections 15124(d) and 15160–15170, the City of Poway Development Services prepared an Initial Study for the proposed project, which determined that an EIR would be required. The Initial Study was included with the Notice of Preparation circulated by the City for public review on May 10, 2019. The City also conducted a Public Scoping Meeting on May 23, 2019, from 6:30 p.m. to 8:00 p.m. in the City of Poway City Council Chambers, 13325 Civic Center Drive, Poway, California. The Initial Study, Notice of Preparation, and Public Scoping comments are provided in Appendix A of this EIR.

Consistent with CEQA Guidelines Section 15121(a), this EIR is an informational document that will inform public agency decision makers and the public generally of the significant environmental effects of the proposed project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the proposed project.

Matrix of Project Approvals/Permits

The City is the Lead Agency, defined in CEQA Guidelines Sections 15050 and 15367 as the "public agency which has the principal responsibility for carrying out or approving a project." This EIR is intended to analyze the environmental impacts associated with the discretionary actions that require ultimate approval by the Poway City Council and further by the voters of the City of Poway through a general or special election.

Additionally, responsible agencies have discretionary approval over one or more actions involved with development of a project, and responsible and trustee agencies are state agencies with discretionary approval or jurisdiction by law over natural resources, which may be impacted. Table 3-1 lists all approvals (e.g., permits, financing approvals, participation agreements) that are expected to be required from the City and other public agencies.

Table 3-1. Proposed Discretionary Approvals and Permits

Discretionary Approval/Permit	Agency Title	Agency Type
General Plan Amendment	City of Poway	Lead Agency
Rezone	City of Poway	Lead Agency
Specific Plan	City of Poway	Lead Agency
Tentative Map	City of Poway	Lead Agency
Conditional Use Permit	City of Poway	Lead Agency
Development Review	City of Poway	Lead Agency
Environmental Assessment	City of Poway	Lead Agency
Proposition FF Rezone Vote	City of Poway Voters	General or Special Election

Table 3-1. Proposed Discretionary Approvals and Permits

Discretionary Approval/Permit	Agency Title	Agency Type
401 Permit	State Regional Water Quality Control Board	Responsible Agency
404 Permit	Army Corps of Engineers	Responsible Agency
1602 Permit	California Department of Fish and Wildlife	Responsible Agency

3.6 List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

Table 3-2 and Figure 3-11 present cumulative projects for the Specific Plan area and surrounding region.

Table 3-2. Cumulative Projects

Map Legend Number	Project Name and APNs	Project Description	Entitlement Status
City of Poway			
1	**The Hop Stop Craft Beer Bar and Kitchen** B19-0601 3142203900	New 2,350-square-foot restaurant and brew pub with outdoor seating	Under Construction
2	**St. Bartholomew's Episcopal Church Remodel and Expansion Project** CUP18-019 2755101900	Proposed 13,422-square-foot addition to an existing church	Under Review
3	**Crest Road Estates** TTM18-005 3161201800, 3161202500	6-lot single-family residential subdivision	Under Review
4	**Aria Estates** B19-0086–B19-0092 3175342000	7-lot single-family residential subdivision	Approved
5	**Liguori Ranch** TTM 02-001 APNs: 2770210500, 2770210600, 2770210700, 2770210800, 2770210900, 2770211000, 2770110400, 2770110500, 2761401300 and 2761401400	31-lot single-family residential subdivision with 29 residential lots and 2 open space lots	Under Construction
6	**Persepolis Estates** TTM 04-001 APN: 3172417600	5-lot single-family residential subdivision	Under Review
7	**Chick-Fil-A** B18-1056 3171306500	New 4,586-square-foot restaurant with drive-thru service	Finalized
8	**Creekside Plaza** DR19-002 3178200900	New 5,000-square-foot commercial building at existing shopping center	Approved

Table 3-2. Cumulative Projects

Map Legend Number	Project Name and APNs	Project Description	Entitlement Status
9	**Animal Emergency Clinic** DR17-055/CUP18-005 3174900200	1,200-square-foot addition to an existing veterinary hospital	Approved
10	**United Oil** B18-0841 3175401500, 3175401600	Demolition of existing gas station and auto repair and replacement with a 2,400-square-foot minimart, 1,000-square-foot carwash, and adding two-pump station for a total of eight	Approved
11	**St Michaels's Rectory** CUP 18-015 2754602600	Replace 4,570-square-foot rectory with a 4,700-square-foot building and adding 450 square feet to the sanctuary	Under Construction
12	**Outpost** B18-1508, B18-1507 3174730700, 3174730800, 3174730900, 3174731000, 3174731100	Mixed-use development with 53 apartments and 40,000 square feet of commercial space	Under Construction
13	**Meadowbrook** TTM16-001 3160204400	12-lot single-family residential subdivision	Under Review
14	**Meriman Subdivision** TTM17-009 3212711900	5-lot single-family residential subdivision	Under Review
15	**Cafagna Community Center** B19-0294 3174721300	New 23,511-square-foot community center to replace existing 26,000-square-foot facility	Under Construction
16	**Express Tire Commercial Center** PA18-009 3174904100	Preliminary application for the construction of a 6,927-square-foot commercial building (auto repair) and 10,527-square-foot retail building at 12619 Poway Road	Under Review
17	**Arcangeli Residential Care Facilities** B18-2314 3141934800	New 15-bed residential assisted care facility	Approved
18	**Residential Care Facility** B18-1906 3141934900	New 15-bed residential assisted care facility	Under Construction
19	**Poway Commons** 3174721800, 3174722300, 3174722400, 3174722500, 3171010600	Mixed-use development with 98 attached market-rate units, 44 affordable senior housing units, and 25,000 square feet of commercial space	Approved
20	**Villa de Vida** B19-0162 3171521400	New 54 affordable apartment units for developmentally disabled adults	Under Construction

Table 3-2. Cumulative Projects

Map Legend Number	Project Name and APNs	Project Description	Entitlement Status
21	**Vista Maderas Subdivision** TTM06-002 2770710400, 2770710500, 2770711400, 2770711600 2770711900	6-lot single-family residential subdivision	Approved
City of San Diego			
22	**Casa de Las Campanas** 272-740-08-00	Construction of a 96,019-square-foot skilled nursing building on a 22.29-acre site as an expansion to the existing Casa de Las Campanas retirement community	Under Construction
23	**The Junipers** 313-060-06-00	Construction of a subdivision of 112.26 acres to create 4 multi-family residential lots with 536 attached/detached single-family homes, 4 open space lots, and 1 private street lot from an existing nonoperational golf course	Under Review
24	**24 Hour Fitness** 313-050-10-00	Addition of a 3,550-square-foot pool and spa to an existing 30,068-square-foot commercial building on a 3.94-acre site	Approved
25	**Black Mountain Ranch North Village (Subarea I)** 678-230-19-00	Construction of 2,902 residential units with 590,000 square feet of non-residential uses. Approximately 80% of the North Village has been constructed. Continued construction includes 119 condominium units and 94 homes.	Under Construction
26	**Pacific Village** 313-030-15-00	Redevelopment of an existing 41-acre apartment complex, including the construction of 600 dwelling units	Under Construction
City of Escondido			
27	**Chalice Unitarian Universalist Congregation** PHG 15-0039 238-110-39-00	Expansion of the existing religious facility through the construction of 2,991 square feet of offices, multi-purpose/classrooms, and foyer additions to the existing building. Also includes addition of 10 parking spaces for a total of 49 parking spaces. Street improvements along Miller Avenue, as well as water supply improvements under Miller Avenue and on the project site. New electric service for the multi-purpose building would also be included in the project.	Approved

Table 3-2. Cumulative Projects

Map Legend Number	Project Name and APNs	Project Description	Entitlement Status
28	**661 Bear Valley Parkway – Residential Development** SUB 15-0002 237-131-01-00, 237-131-02-00	Construction of a 55-unit residential development with Bear Valley Parkway (40.62 acres), frontage improvements, private streets, dedicated open space, and recreation lots, as well as the phased improvement of a section of Bear Valley Parkway to 4-lane major road standards	Approved
29	**Del Prado Planned Development** ENV15-0011, SUB15-0022 and 23, PHG15-0031, AZ15-0002 238-130-11-00, 238-130-26-00, 238-130-27-00, 238-130-35-00, 238-130-36-00.	Construction of 113 attached townhome units on two lots, with 81 residences proposed for Del Prado North and 32 residences proposed for Del Prado South; construction of private streets and parking areas within the project site; shared recreational facilities including pool, bathing deck, trellis, BBQ area, and restroom facility; demolition and removal of an existing single-family home located in the northwest corner of the site; and landscaping and bio-retention basins to provide flow control and water quality treatment of stormwater runoff on 4.9-acre lot	Approved
30	**Oak Creek** SUB 13-0002 238-110-25-00, 238-110-35-00; 238-370-01-00, 238-370-04-00, 238-370-05-00, 238-370-06-00, 238-370-07-00, 238-370-08-00, 238-380-01-00	Construction of a 41.4-acre low-density housing development project that would include 65 single-family detached residences	Approved
31	**Westfield North County Theater Project** PHG15-0026 760-170-28-01, 760-170-28-02, 271-030-20-00, 760-170-28-00, 760-170-28-03	Construction of a 50,341-square-foot theater with approximately 10 screens and 1,248 seats; construction of a new outdoor pedestrian plaza between the existing shopping mall and the proposed theater; modification of the current Master Sign Program to allow for new signage on the project site	Under construction



SOURCE: The Farm in Poway, LLC, 2020

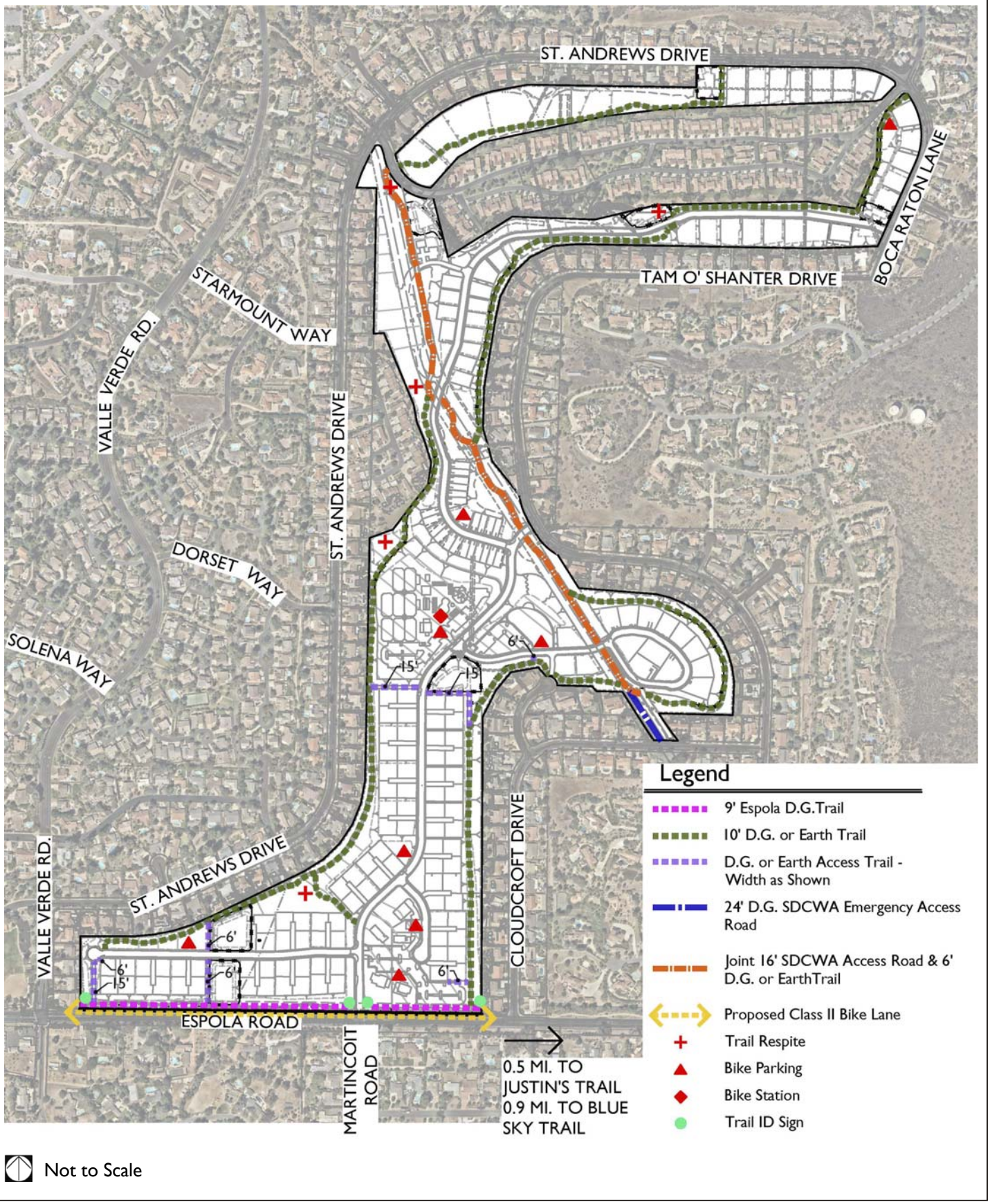
FIGURE 3-1

Land Use Plan

The Farm in Poway

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SOURCE: The Farm in Poway, LLC, 2020

FIGURE 3-2

Conceptual Trail Network

The Farm in Poway

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SOURCE: The Farm in Poway, LLC, 2020

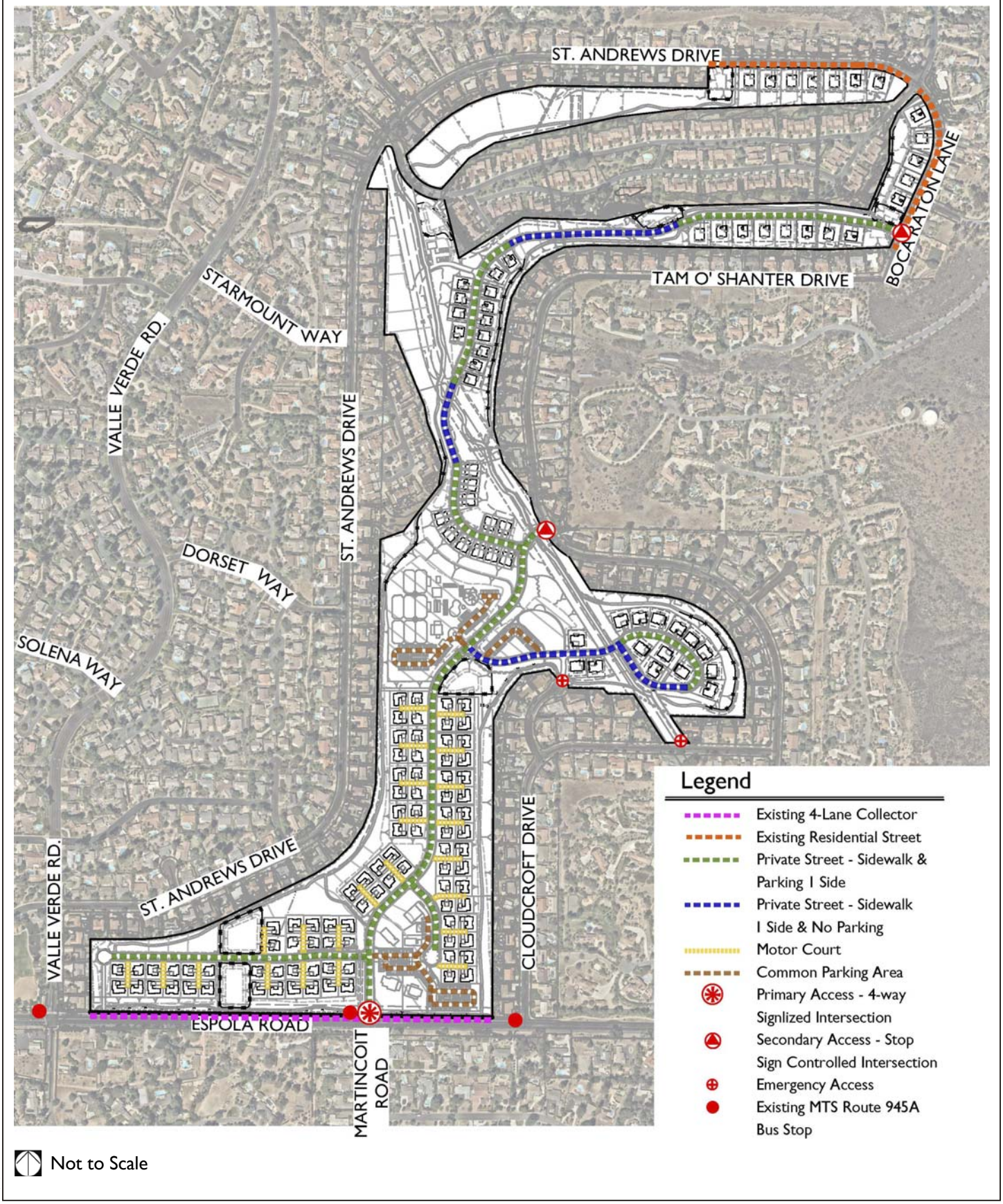
FIGURE 3-3

Martincoit Road and Espola Road Intersection Improvements

The Farm in Poway

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SOURCE: The Farm in Poway, LLC, 2020

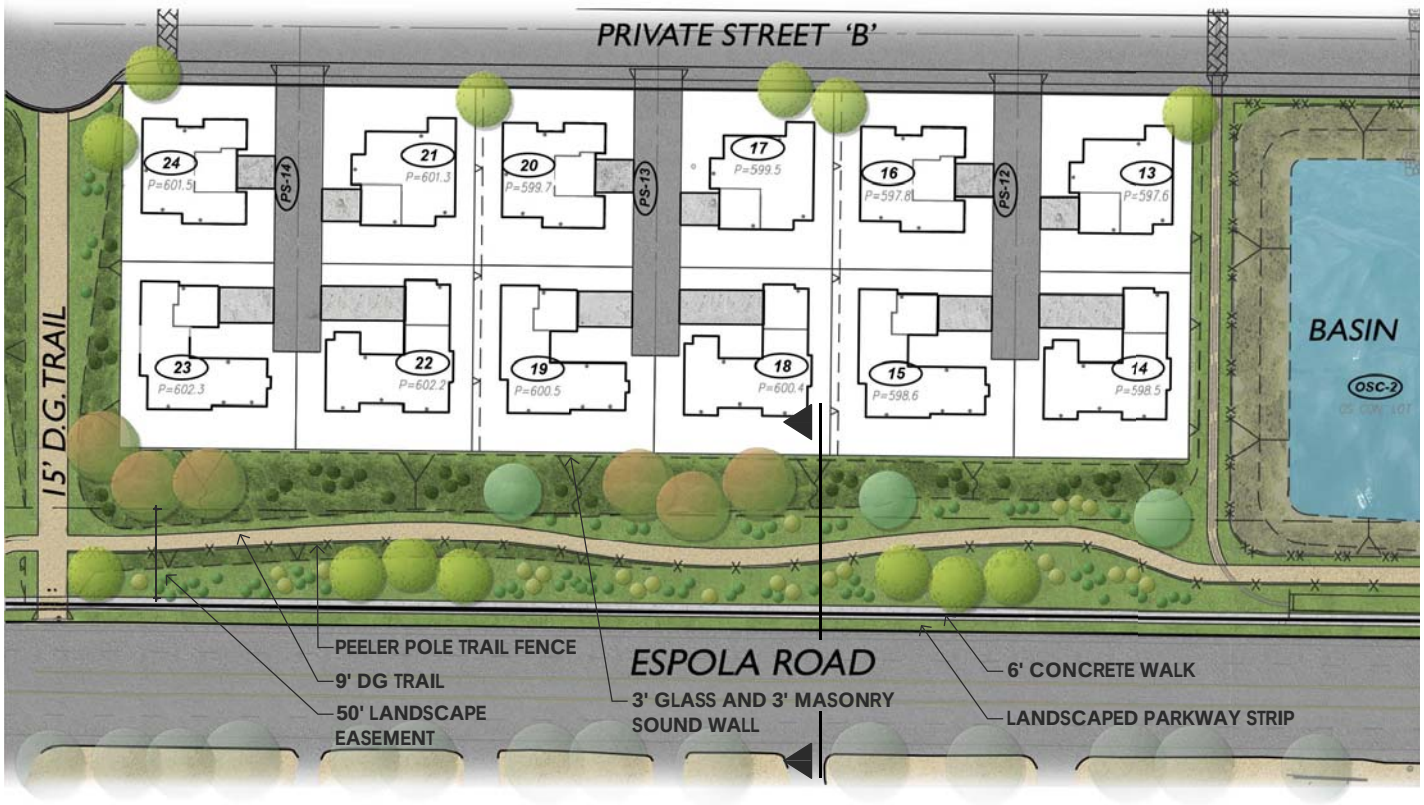
FIGURE 3-4

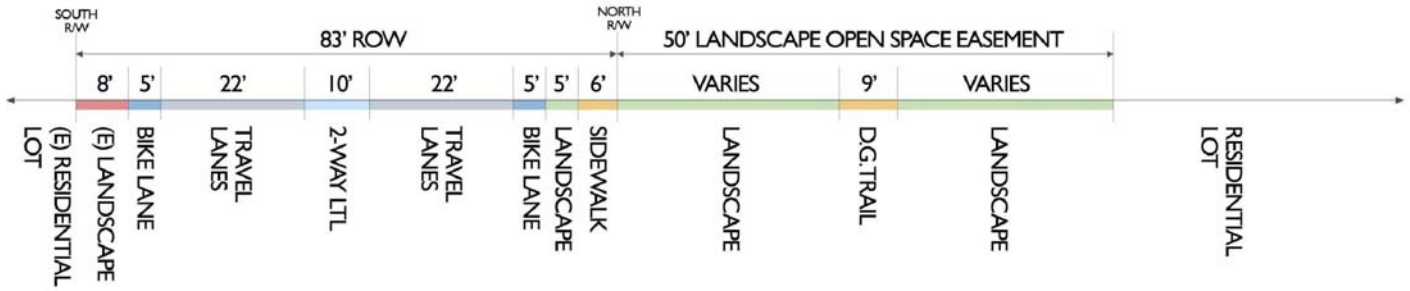
Conceptual Street Network

The Farm in Poway

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Not to Scale

SOURCE: The Farm in Poway, LLC, 2020

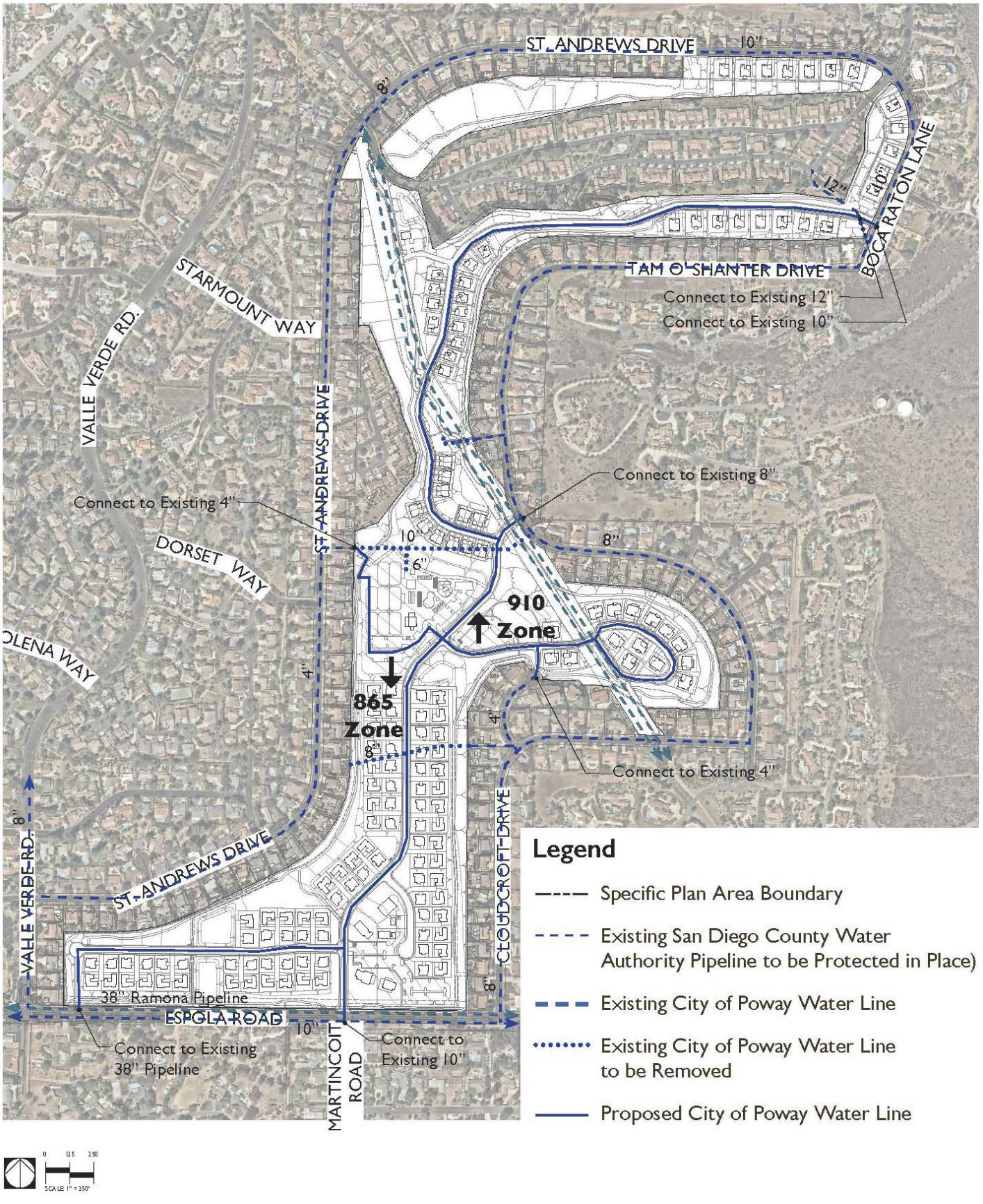
FIGURE 3-5

Espola Road Improvements

The Farm in Poway

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SOURCE: The Farm in Poway, LLC, 2020

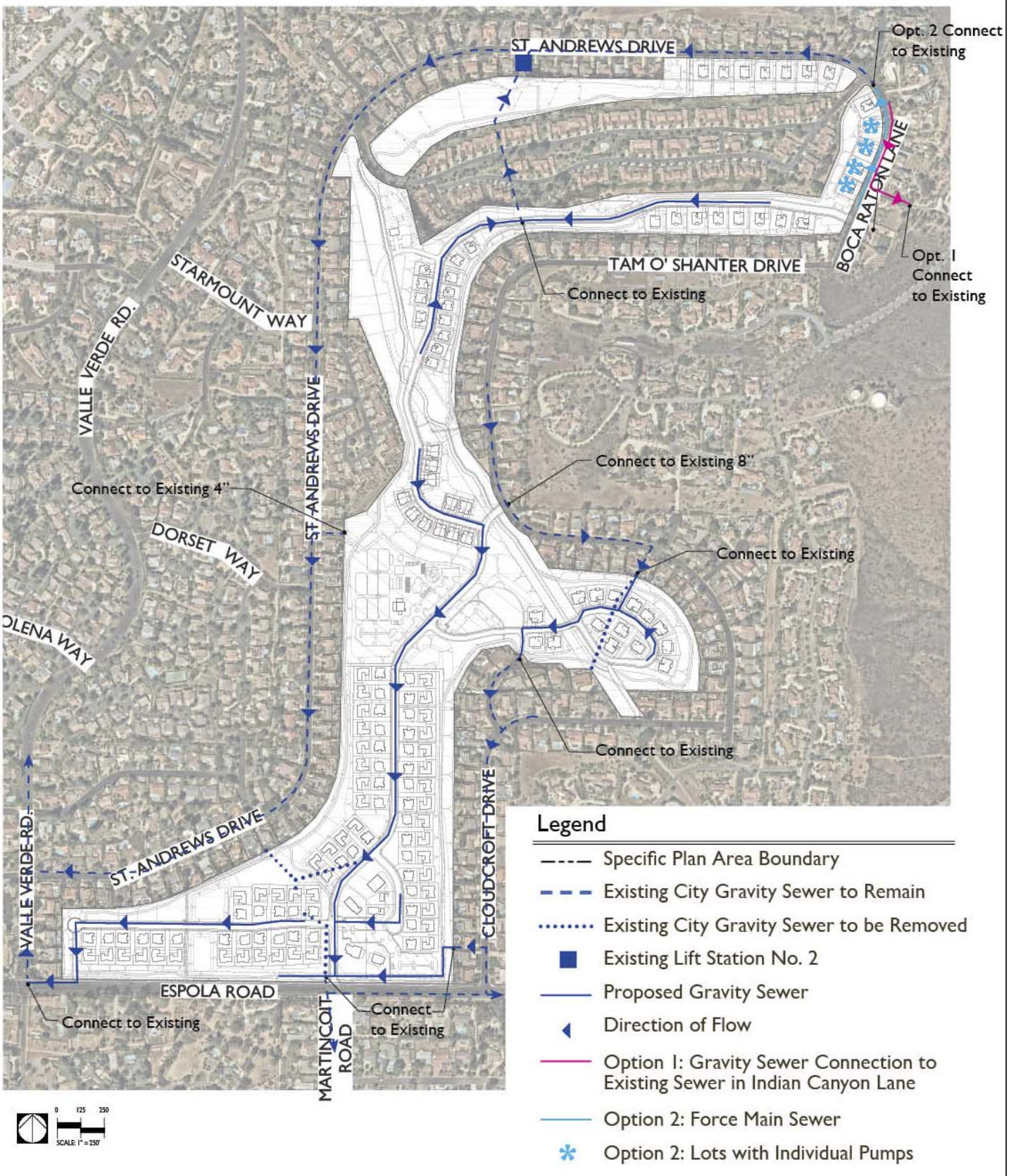
FIGURE 3-6

Conceptual Water Master Plan

The Farm in Poway

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SOURCE: The Farm in Poway, LLC, 2020

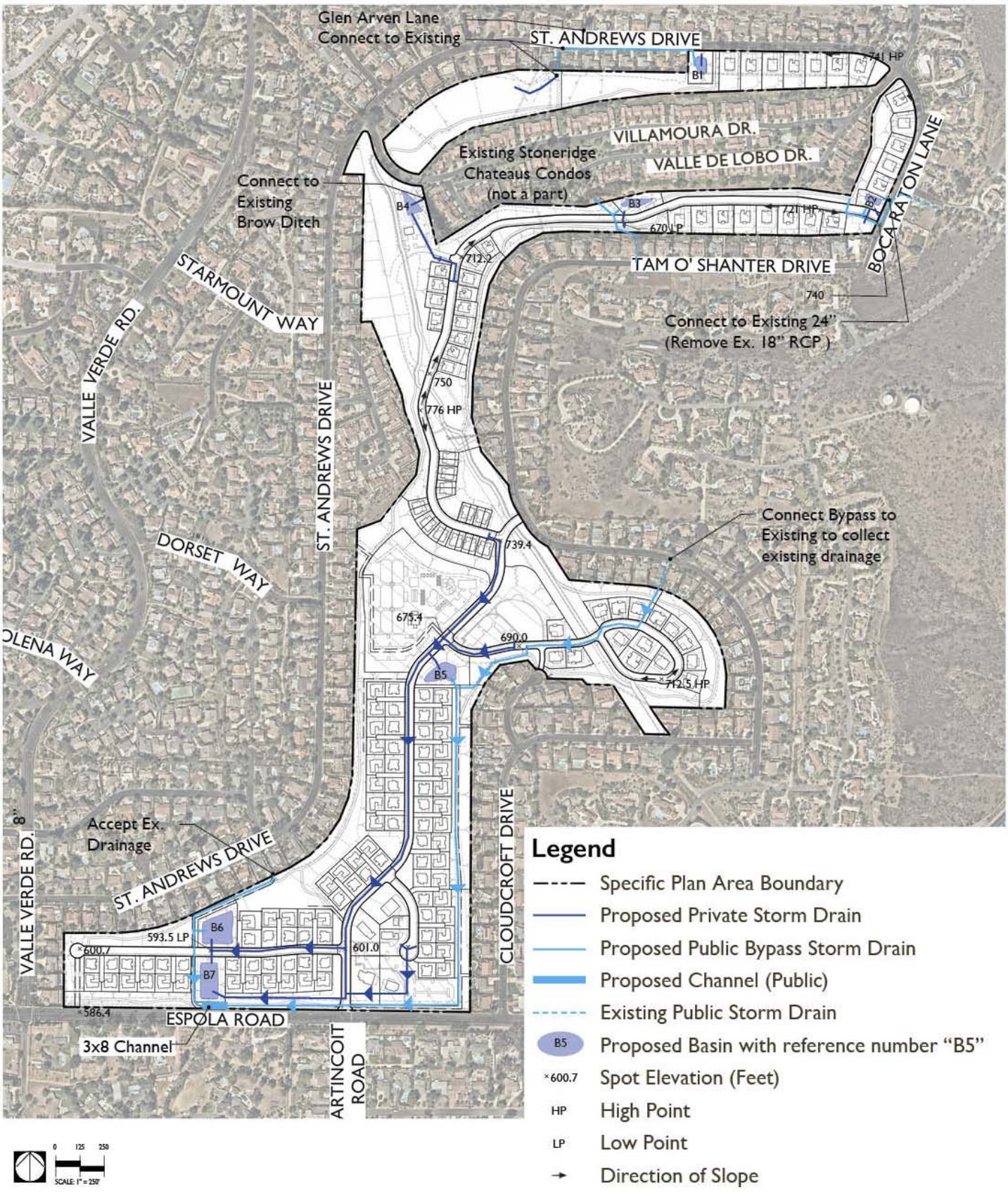
FIGURE 3-7

Conceptual Sewer Master Plan

The Farm in Poway

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SOURCE: The Farm in Poway, LLC, 2020

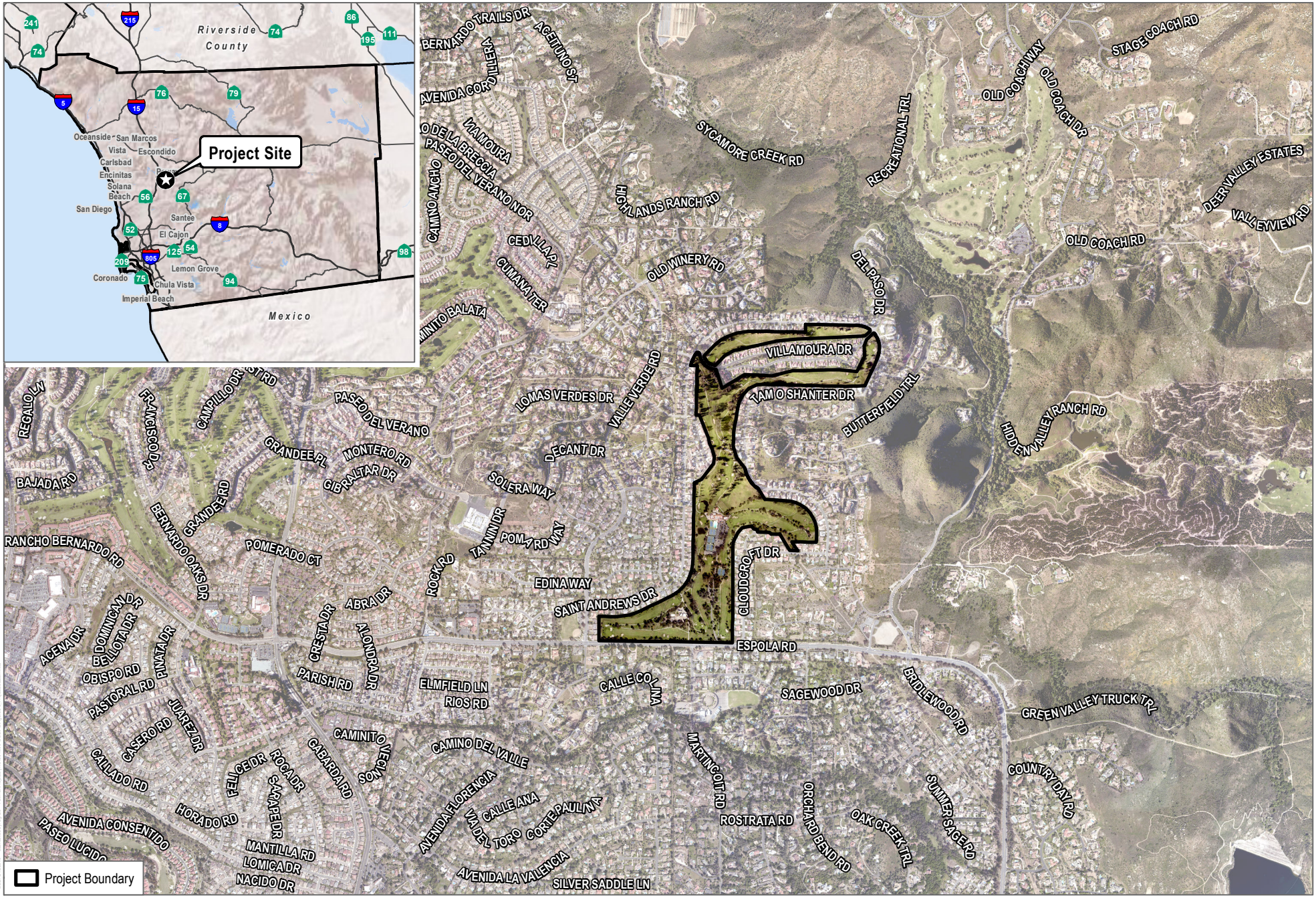
FIGURE 3-8

Conceptual Drainage Plan

The Farm in Poway

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SOURCE: SANGIS 2017, 2019

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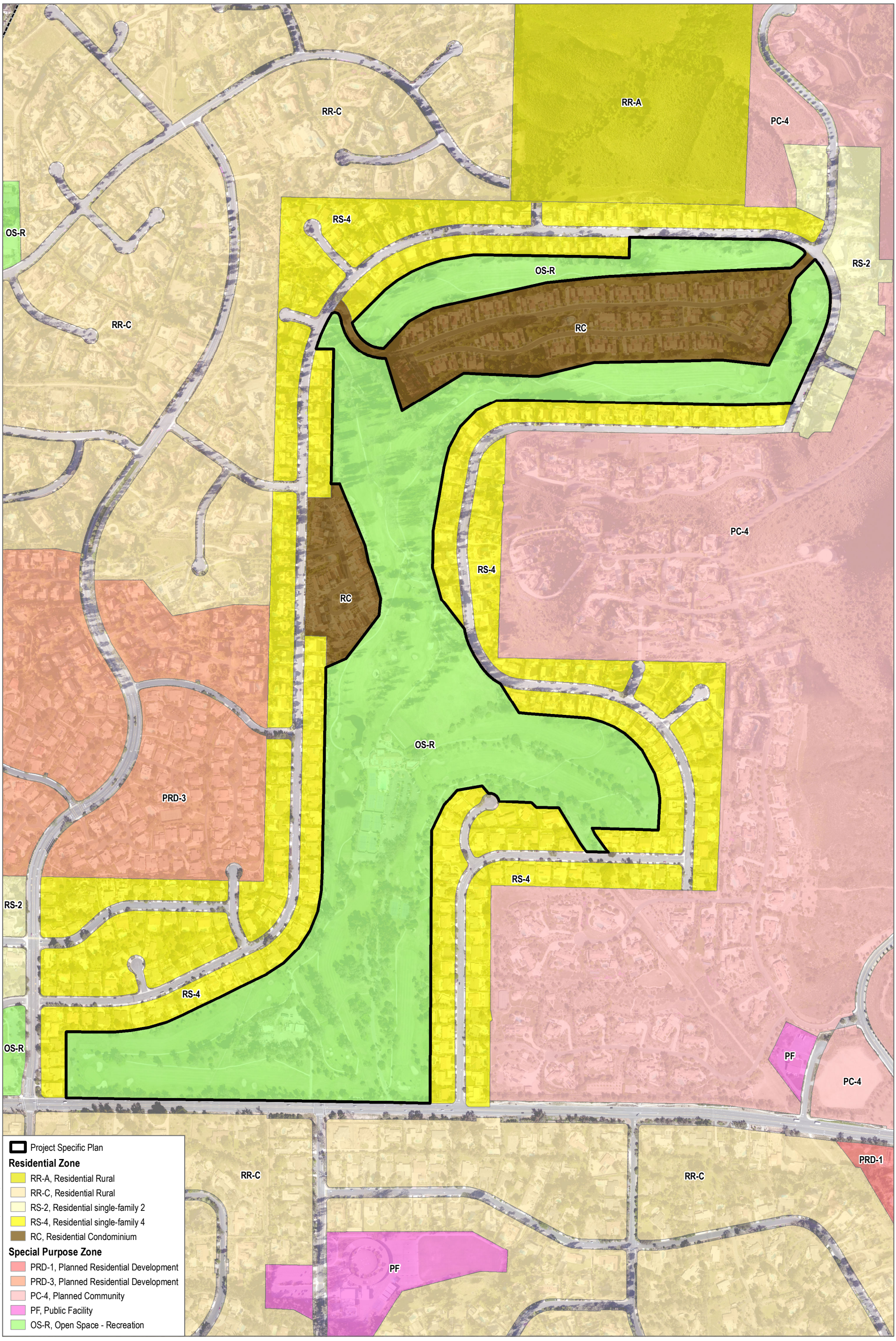
0 1,000 2,000 Feet

FIGURE 3-9

Project Location

The Farm in Poway

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SOURCE: SANGIS 2017, 2019; City of Poway 2019

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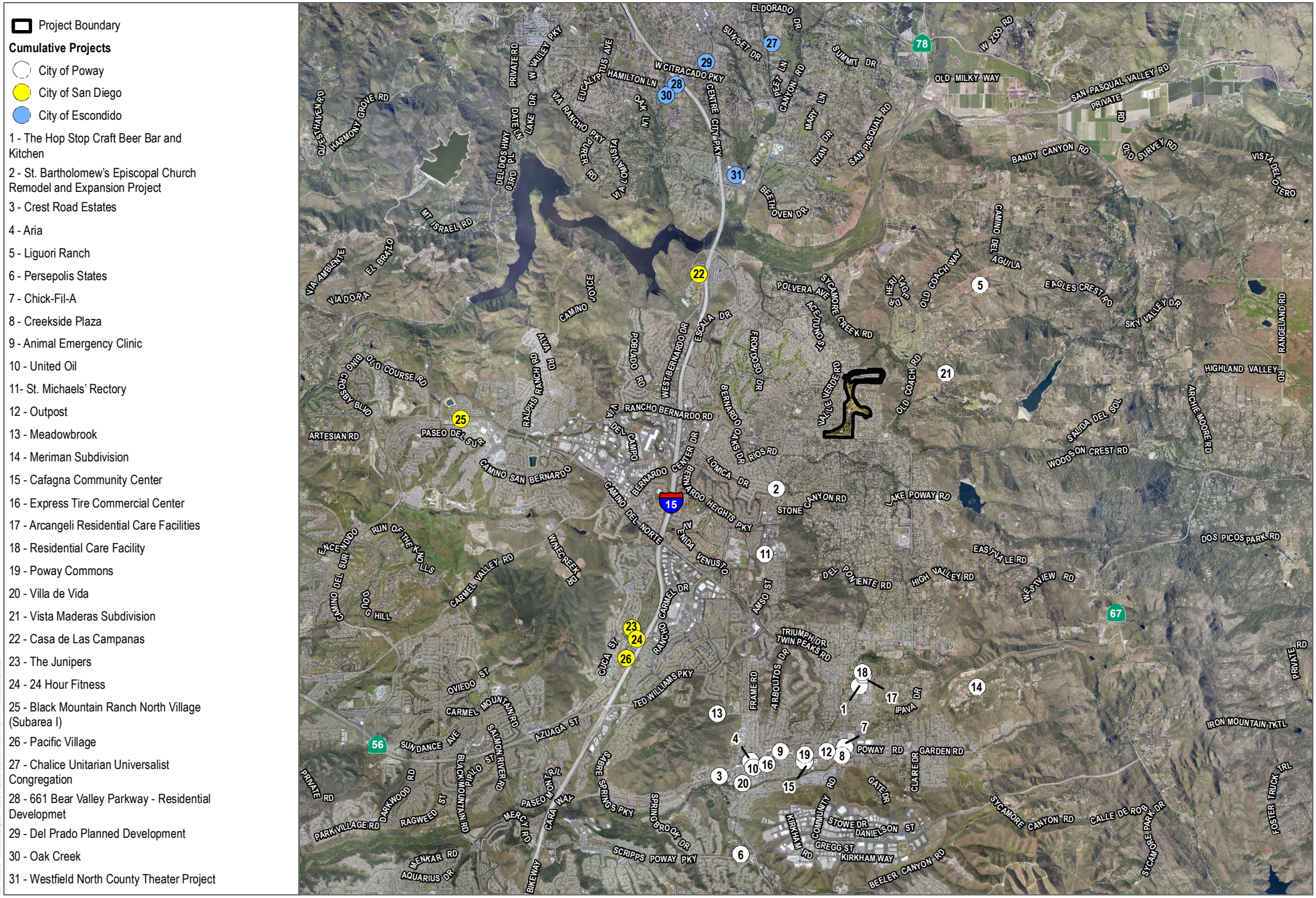
0 250 500 Feet

FIGURE 3-10

Surrounding Lands Uses

The Farm in Poway

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SOURCE: SANGIS 2017, 2019

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FIGURE 3-11

Cumulative Projects

The Farm in Poway

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4 Environmental Analysis

The following sections analyze the potential environmental impacts that may occur as a result of implementation of The Farm in Poway project (proposed project). The environmental issues addressed in this chapter include the following:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

Each issue analysis section includes a description of existing conditions, the criteria for the determination of impact significance, evaluation of potential project impacts including cumulative impacts, mitigation measures (if applicable), and a conclusion of significance after mitigation for impacts identified as requiring mitigation (if applicable).

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4.1 Aesthetics

This section describes the existing visual conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to aesthetics focused on the following topics:

- Preservation of views and privacy
- Appearance of community along Espola Road
- Conformance with community aesthetics

These comments were considered during the preparation of this Environmental Impact Report (EIR). However, it should be noted that the preservation of private views and privacy is not under the purview of the California Environmental Quality Act (CEQA). The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.1.1 Existing Conditions

Community Overview

The City of Poway (City) is situated in a network of hillsides and valleys and comprises an area that has many natural resources including creeks and channels, canyons, grassland areas, and mountains. These areas provide the City with aesthetic visual resources that add to the City's rural character and support a significant amount of native plant and animal life. Additionally, the vast amount of open space land in the City, which comprises approximately 50 percent of the total City land area, represents a significant part of the rural character of the City. While the City has historically been characterized as a farming community over the last 100 years, it is currently characterized by varying densities of residential land uses, limited commercial, industrial, public facility and recreational uses and vast amounts of open space (City of Poway 1991).

Surrounding Land Uses

The land uses surrounding the project site consist of single- and multi-family residential development that includes detached residences on a variety of lot sizes, attached residences of several different densities, and several planned community developments; see Chapter 3, Project Description, for Figure 3-10, Surrounding Land Uses. The surrounding development consists of mostly single-family homes zoned Residential Single-Family 4 (RS-4), which is intended for 10,000-square-foot lots and maximum densities of four units per acre. A small cluster of residential condominium-zoned (RC) multi-family homes exist along the western edge of the project boundary along Port Marnock Drive, which allows for 12 units per acre. Along the northern portion of the project site, along Villamoura Drive and Villa De Lobo Drive, similar RC zoned multi-family housing is present.

Scenic Vista

The City includes views of several mountain peaks, including Mt. Woodson, Iron Mountain, and Twin Peaks, in addition to other prominent ridgelines that penetrate into the developed areas of the City. However, the City does not specifically designate scenic vistas.

Scenic Highways

According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, the proposed project is not located adjacent to, or in the vicinity of, a designated state scenic highway or eligible state scenic highway, nor are there any designated or eligible state scenic highways within the City's limits (Caltrans 2011). The closest eligible state scenic highway is State Route (SR) 52, located approximately 11.5 miles south of the project site. The closest designated State Scenic Highway is the portion of SR-125 between SR-94 and Interstate 8 near La Mesa, which is approximately 17 miles south of the project site.

The Poway Comprehensive Plan: General Plan (General Plan) contains local scenic roadways including Espola Road from the western City limits to Poway Road, Poway Road from Espola Road to SR-67, SR-67 through the Poway City limits, and Midland Road between Hilleary Road and Twin Peaks Road. Where not inhibited by existing or approved development, the City requires a landscaped open space easement of 50 feet from the ultimate right-of-way along all scenic roadways (City of Poway 2010). Espola Road is the only City-designated local scenic roadway within the vicinity of the proposed project.

Light and Glare

Upward-pointing or upward-reflected light from outdoor lighting is a significant source of nighttime light. Nighttime light that spills outside of the intended area, as well as lighted signs, can be annoying to neighbors and potentially harmful to motorists, cyclists, and pedestrians. Nighttime lighting can result in skyglow (the brightening of the night sky) and light trespass (a result of spill light shining in undesirable locations). Nighttime lighting in excess of what is necessary for its purpose is called light pollution. Light pollution cannot completely be eliminated, but it can be minimized to help create dark skies and to decrease energy consumption. There are no existing sources of nighttime lighting within the boundary of the project site, as the former StoneRidge County Club and associated golf course are no longer operating.

Glare is the result of sharply reflected light caused by sunlight or artificial light reflecting from highly finished surfaces such as windows or brightly colored surfaces, and from the direct view of a bright, unshielded light source. Glare can be uncomfortable (discomfort glare) or disabling (disability glare). Glare decreases visibility, but the level of receptor sensitivity to glare can vary widely. There are no existing sources of glare at the project site, as the StoneRidge County Club and associated golf course are no longer operating.

4.1.2 Relevant Plans, Policies, and Ordinances

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Scenic Highway Program

Created by the Legislature in 1963, the California Scenic Highway Program includes highways designated by Caltrans as scenic. The purpose of this program is to preserve and protect the scenic beauty of California highways and adjacent corridors through conservation and land use regulation. For a highway to be included in the program, it must first be nominated by the specific city or county where it is located. The nomination/eligibility process also entails that the city/county identify and define the scenic corridor of the highway to better understand the extent of visual resources requiring conservation. For an eligible highway to be officially designated and included in the program, the local government with jurisdiction over lands abutting the highway must implement a scenic highway corridor protection program that safeguards the scenic appearance of the corridor. Corridor protection may be achieved through a variety of means, including regulation of land uses and intensity of development, detailed land and site planning, control of outdoor advertising, consideration of earthmoving and landscaping, and the design and appearance of structures and equipment. If the local Caltrans district and State Scenic Highway coordinators determine that the corridor protection program meets the five legislatively required elements discussed above, a recommendation to designate the highway as scenic is forwarded to the Caltrans director. The Caltrans director may revoke scenic highways that no longer comply with the program. There are no designated scenic highways located in the proposed project's vicinity.

Local

City of Poway Municipal Code – Chapter 13.15 – Street Lighting

Chapter 13.15 of the City's Municipal Code (City of Poway 2019) provides regulations regarding street lighting standards to minimize glare, light trespass, and artificial sky glow for the benefit of the citizens of the City, and to promote lighting design that provides for public safety, utility, and productivity while conserving energy and resources.

Poway Comprehensive Plan: General Plan – Community Development Element

The General Plan Community Development Element includes the following policies and strategies that could apply to the proposed project (City of Poway 1991):

Goal I – It is the goal of the City of Poway to preserve Poway's unique and desirable character as "The City in the Country" and to maintain high quality design and environmental standards in all new development and redevelopment.

Policy A – Streetscape: Seek to develop an attractive streetscape which reflects the rural, small town character of the City.

- **Strategy 1:** Streetscape design should encourage an aesthetic roadway area that integrates street hardware, signs, lighting, landscaping, and pedestrian access.
- **Strategy 2:** Screening such as solid walls or fencing should principally serve as a device to restrict visual and acoustical impacts, but should also be designed to enhance the streetscape.
- **Strategy 3:** Where trees are now encroaching into the public right-of-way, the City shall establish a program that plants replacement trees in anticipation of removal of existing trees.
- **Strategy 6:** Covenants, conditions, and restrictions (CC&Rs) shall be adopted for all new subdivisions which require appropriate use and maintenance of lot areas which are visible from off-site in order to protect and enhance the character and image of the City.

Policy C – Site Design: Attractive, efficient site design shall be required of all development.

- **Strategy 18:** For projects with slopes of 15 percent or greater, a visual impact analysis shall be prepared to determine the most suitable location(s) for the building pad(s).

Policy D – Grading: Necessary grading should be done so as to minimize the disturbance to the site and the environmental and aesthetic impacts.

Policy F – Architecture: The design of buildings should be aesthetically pleasing and consistent with the City's desire to retain Poway's small town character and image.

- **Strategy 7:** All structures shall be of a muted color scheme, with style and texture which reflect the traditional/rural character of the community and natural environment. They shall not be bright, reflective, metallic, or otherwise visually out of character with the community or natural setting. A color palette shall be submitted as part of the site plan.

Policy I – Lighting: Lighting should provide for public convenience and safety but not conflict with the rural nature of the community.

- **Strategy 1:** Areas other than rural residential areas should be provided with street lights.
- **Strategy 2:** Public and semi-public parking lots and driveways should be adequately lighted for public safety. Except for single-family homes, only low pressure sodium lighting may be used for exterior lighting between 11:00 p.m. and dawn.
- **Strategy 3:** All lighting shall be shielded and directed so as to not shine on adjoining properties.
- **Strategy 4:** Lighting placed upon the building should be architecturally integrated into the design.
- **Strategy 5:** Lighting shall be provided to adequately illuminate building entrances, access areas, parking areas, walkways and stairways.
- **Strategy 6:** Lighting for home security should generally be provided through street lighting, however, supplemental residential-type lighting may be provided for security providing that it does not adversely affect adjacent properties.

Poway Comprehensive Plan: General Plan – Transportation Element

The following from the General Plan Transportation Element could apply to the proposed project (City of Poway 2010):

Goal VI, Policy B – Scenic Roadways: Continue to identify, designate and preserve local scenic roadways.

- **Strategy 1:** Where not inhibited by existing or approved development, an open space easement of 50 feet from the ultimate right-of-way line shall be required along all scenic roadways, except Midland Road and Espola Road south of Titan Way to Poway Road. This easement area shall be landscaped to enhance the scenic roadway area using drought tolerant plant materials.
- **Strategy 2:** Any new residential developments adjacent to a scenic roadway, except Midland Road, shall have decorative solid walls and/or landscaped earthen berms to enhance the scenic quality of the area.

Poway Comprehensive Plan: General Plan – Natural Resources Element

The following from the General Plan Natural Resources Element could apply to the proposed project (City of Poway 1991):

Goal II, Policy A – Scenic Areas: Scenic areas, prominent vistas and open space areas that typify Poway's rural history and image should be preserved and protected through appropriate land use policies.

- **Strategy 1:** Significant open space areas and scenic vistas along local scenic roadways should be protected.
- **Strategy 2:** The mountains, hillsides and prominent ridgelines are a valuable natural resource and should be preserved through appropriate land use policies.

4.1.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to aesthetics are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, except as provided in Public Resources Code Section 21099, a significant impact related to aesthetics would occur if the project would:

1. Have a substantial adverse effect on a scenic vista.
2. Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
3. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.
4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.4 Impacts Analysis

Would the project have a substantial adverse effect on a scenic vista?

The City's General Plan emphasizes the protection of scenic areas, prominent vistas, and open space areas that typify the community's rural history and image. Valuable scenic vistas include those of mountains, hillsides, prominent ridgelines, and significant open space areas and scenic vistas along locally designated scenic roadways. The City does not designate scenic vistas. Although not officially designated, major public open space areas within the vicinity of the proposed project include the Lake Poway Recreation Area and Blue Sky Ecological Reserve. Additionally, Mt. Woodson and Iron Mountain are located approximately 3.75 miles east and six miles southeast, respectively.

Blue Sky Ecological Reserve trails are located in a canyon and beyond a small hill that is adjacent to the bend in Espola Road. Due to the topography, the project site is not visible from the Blue Sky Ecological Reserve. Portions of the project site may be visible from trails associated with the Lake Poway Recreation Area, and specifically the trails northwest of the lake. However, the proposed project would develop residential and open space uses on an infill site in an urbanized area and the project site is entirely surrounded by existing residential development. Therefore, due to the distance between these trails and the project site, it would be difficult to distinguish the proposed project from adjacent existing development and the project site would blend with the existing environment.

From Mt. Woodson and associated trails, views of the project site would be similar as those from the aforementioned trails surrounding Lake Poway, but more obscured as Mt. Woodson is approximately 2.25 miles farther from the project site than Lake Poway. Finally, due to the distance and intervening topography, the project site would not be distinguishable from Iron Mountain. Viewers oriented towards the project site from this location would see the distant development which characterizes the City, and the various ridgelines to the east and north.

The proposed project would also be designed to maintain a low profile and would be scaled similarly to surrounding land uses, which consist of single-family residential developments on a variety of lot sizes. All buildings would be limited to a maximum height of 35 feet, with the exception of architectural appurtenances or thematic structures such as towers, silos, windmills, or similar design features. The proposed project would include a 50-foot open space easement along Espola Road that would include landscaping, as well as a multi-use trail; any parking areas located within this setback shall be screened with a minimum three-foot-high berm and dense landscaping and 15-gallon trees spaced at one per 15 lineal feet as required by The Farm in Poway Specific Plan (Specific Plan) (see Figure 3-5, Espola Road Improvements). The multi-use trail system would also surround the majority of the project site, acting as a buffer between the proposed project and surrounding development (see Figure 3-2, Conceptual Trail Network). Further, the Project site is currently blighted, as the former golf course has been closed since 2017 and has fallen into disrepair. The proposed project would not substantially interrupt or obstruct available views from any scenic areas. No designated scenic vistas would be impacted by the proposed project. Thus, impacts to scenic vistas would be **less than significant**.

Would the project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no officially designated or eligible highways within the City. The closest designated State Scenic Highway is the portion of SR-125 between SR-94 and Interstate 8 near La Mesa, which is approximately 17 miles south of the project site. Therefore, **no impacts** to scenic resources within a State Scenic Highway would occur.

As previously discussed, Espola Road is designated as a local scenic roadway by the City and County. While traveling east, and along the southern boundary of the project site, Espola Road offers several long-range views of Mt. Woodson and adjoining ridgelines. The City requires a landscaped open space easement of 50 feet from the ultimate right-of-way along local scenic roadways, including this portion of Espola Road. Thus, the proposed project would establish an open space easement of 50 feet from the ultimate right-of-way line of Espola Road. This easement would be landscaped with drought tolerant plants and would follow water conservation principles to enhance the scenic roadway area. The scenic easement along Espola Road would also include a multi-use trail and parking behind an earthen berm and landscape as previously mentioned (see Figure 3-5). Adjacent residential homes, located beyond the scenic setback, would also be clustered to preserve visual open space corridors through the site and would be screened by an informal pattern of trees and shrubs. While the proposed project would comply with the City's regulations governing local scenic roadways, Espola Road is not a State Scenic Highway and thus **no impacts** would occur.

In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

CEQA Section 21071 defines an "urbanized area" as "(a) an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000

persons." As of July 1, 2018, the US Census Bureau estimated the population of Poway to be 49,704 persons (U.S. Census Bureau 2018a). While the City's population is under 100,000 persons, the City is contiguous with the City of San Diego, which was estimated to have a population of 1,425,976 persons as of July 1, 2018 (U.S. Census Bureau 2018b). Therefore, the City would be considered an urbanized area per CEQA and therefore the first question of this threshold would not apply to the proposed project, as it is directed at non-urbanized areas. CEQA Section 21071 also defines an urbanized area for unincorporated areas; however, the City is an incorporated city, so this definition was not considered.

The City's existing General Plan Land Use and Zoning Map designates the entire project site as "Open Space – Recreation (OS-R)" (City of Poway 1991). A General Plan amendment and zoning amendment would be processed concurrently with the Specific Plan to designate the project site as "Planned Community (PC-9)." The amendment consists of both a map amendment and zoning text amendments. Currently, a Planned Community (PC) zone may only be applied to properties 300 acres or larger. The proposed text amendment would revise this portion of the text to allow the project site of approximately 117.2 to be zoned as PC. In addition, a new section would be added to the zoning ordinance that briefly describes The Farm in Poway Planned Community and requirements for future voter approval for changes to residential density and open space that are not addressed in the Specific Plan. This designation and zoning would be consistent with a few other specific plan areas throughout the City. The proposed project would not conflict with zoning, as amended by the project, as these discretionary approvals would allow for the proposed project.

The proposed project includes the adoption of a new specific plan, the Specific Plan (The Farm in Poway LLC 2020), the purpose of which is to establish a link between implementing policies of the General Plan and the individual development proposals in a defined area. As required by Government Code Section 65450 et seq., the Specific Plan contains land uses and development regulations, infrastructure requirements, and implementation measures for the development of a specific geographic area (referred to as the project site or Specific Plan area). These provisions require that a specific plan be consistent with the adopted general plan. The Specific Plan includes a General Plan Consistency Analysis, which demonstrates that the Specific Plan is generally consistent with applicable General Plan policies. Additionally, the General Plan Consistency Analysis is outlined in Table 4.10-1, Project Consistency with City of Poway General Plan. As described in Section 4.10, Land Use and Planning, the proposed project would not result in a conflict with any applicable land use plan, policy, or regulation for the purpose of avoiding or mitigating an environmental effect, which would include those governing scenic quality. All General Plan policies pertaining to scenic quality, as identified in Section 4.1.2, Relevant Plans, Policies, and Ordinances, are addressed in Table 4.10-1. Therefore, the proposed project would not conflict with any plans or policies governing scenic quality. The City has no ordinances governing scenic quality. Thus, because the proposed project is in an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality, impacts would be **less than significant.**

Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project site currently contains the former StoneRidge Country Club golf course and associated buildings, which are non-operational, and no lighting is currently used on site. The proposed project would demolish the StoneRidge Country Club buildings and build 160 residential units and other uses, creating new sources of light on the project site. However, all lighting within the project site would comply with Title 24 of the California Code of Regulations. In addition to conformance with Title 24, the Specific Plan would include further lighting regulations limiting height, intensity, and time-of-day use. Additionally, street lighting would be shielded to illuminate the streets, promote dark skies, and inhibit any unnecessary nighttime lighting or glare. The proposed project would also comply with Chapter 13.15 of the City's Municipal Code, as well as the City's Supplemental Engineering Standards (City of Poway 2012) with regard to outdoor lighting fixtures, street lighting, and safety lighting.

Windows on the proposed residences and buildings, and associated cars, have the potential to create new sources of glare. However, these uses and glare sources would not be inconsistent with the surrounding land uses, as the project site is entirely surrounded by existing residential development. Also, the proposed project would not use highly reflective materials. Therefore, compliance with applicable lighting regulations and visual consistency with surrounding development would ensure that impacts due to new sources of light and glare would be **less than significant**.

4.1.5 Cumulative Impacts

Figure 3-11, Cumulative Projects, and Table 3-2, Cumulative Projects, identify the projects generally considered for the cumulative analysis. More specifically, the geographic scope for analyzing cumulative impacts related to aesthetics focuses on lands in near proximity to the project site (e.g., public roadways).

Scenic Vistas

Cumulative projects located in the Poway region would have the potential to result in a cumulative impact to scenic vistas if, in combination, they would result in the obstruction, interruption, or detraction from a scenic vista. As described in Section 4.1.1, Existing Conditions, the City does not specifically designate scenic vistas. However, the City has open space recreational areas including the Lake Poway Recreational Area and Blue Sky Ecological Reserve, which afford broad views of the City and various ridgelines to the north and east. Due to the distance of the project site from these recreational areas, in addition to the existing residential land uses entirely surrounding the project site, it would be difficult to distinguish the proposed project from adjacent existing development and the project site would blend with the existing environment.

Furthermore, the closest cumulative project to the proposed project is the Vista Maderas Subdivision project located approximately 0.9 miles east of the project site, as shown on Figure 3-11. Due to the distance between these projects, in addition to the proposed project's location on an infill site and congruency with the surrounding residential land uses, the proposed project **would not result in a cumulatively considerable impact** to scenic vistas.

Scenic Highways

State Scenic Highways are those highways that are either officially designated as state scenic highways by Caltrans or are eligible for such designation. There are no officially designated or eligible highways within the City. The closest designated State Scenic Highway is the portion of SR-125 between SR-94 and Interstate 8 near La Mesa, which is approximately 17 miles south of the project site.

As mentioned, Espola Road is a local scenic roadway as designated by the City and the proposed project would comply with the City's setback requirements, except for parking behind an earthen berm and landscape, for Espola Road. There are no cumulative projects along or in the vicinity of Espola Road. Further, since Espola road is not a designated or eligible state scenic highway, and there are no designated or eligible state scenic highways within the City, **no cumulative impact** to a state scenic highway would occur.

Policy Consistency

As discussed in Section 4.1.4, Impacts Analysis, the proposed project is in an urbanized area, per CEQA, so impacts would only occur if the project would conflict with applicable zoning and other regulations governing scenic quality. Since the proposed project would not conflict with applicable zoning, as amended by the project, or any other regulations governing scenic quality, and because policy consistency is determined on a project-by-project basis, **no cumulative impact** would occur.

Light and Glare

The proposed project would have the potential to result in an incremental increase in light and glare associated with the new development. However, the City's Municipal Code, General Plan policies, and State Title 24 Regulations require new development to avoid glare impacts and minimize nighttime lighting. Specific Plan requirements are also included to avoid nuisance nighttime lighting. Cumulative projects would also be required to comply with these regulations, reducing cumulative impacts through collective regulatory compliance. Additionally, the closest cumulative project to the proposed project is the Vista Maderas Subdivision project located approximately 0.9 miles east of the proposed project and at a higher elevation. Due to the distance and topography, any potential light and glare associated with this cumulative project would not result in considerable cumulative impacts in conjunction with the proposed project. Therefore, impacts would be less than significant and the proposed project **would not result in a cumulatively considerable impact** related to light and glare.

4.1.6 Mitigation Measures

Implementation of the proposed project would not result in significant impacts to aesthetics. Therefore, no mitigation would be required.

4.1.7 Other Considerations

Recognizing there is a great deal of public interest and concern regarding changes in the visual environment resulting from implementation of the proposed project, the following discussion provides a description of the visual simulations prepared to help conceptualize views of the proposed project from surrounding public vantage points or Key Observation Points (KOPs). An overview of KOP locations is included as Figure 4.1-1, KOP Locations. The following discussion is for informational purposes only and is not required by CEQA for determination of environmental impacts. As a result, the visual simulations and information provided below are for the benefit of the public and decision makers.

KOP and Visual Simulation 1

As depicted in Figure 4.1-2, Visual Simulation 1: Espola Rd. & Martincoit Rd., KOP 1 is located at the intersection of Espola Road and Martincoit Road looking north at the main entrance of the proposed project. The proposed project would improve this intersection into a signalized four-way intersection, as discussed in Chapter 3, Project Description. The proposed project's primary entrance, monument signs, proposed Event Barn, and some proposed Residential Cottage (R-C) housing units would be visible from this location. Additionally, the proposed landscape setback from Espola Road and nine foot decomposed granite trail can be seen along in the foreground. All on-site trees seen in the existing view would be removed from the project site.

KOP and Visual Simulation 2

As depicted in Figure 4.1-3, Visual Simulation 2: Tam O'Shanter Dr., KOP 2 is located along Tam O' Shanter Drive, looking west towards the middle of the project site. As shown, the primary views of this location would be ornamental landscaping and trees. The proposed Residential Twin (R-T) housing units located in the middle of the project site would be visible in the background. The existing fence would be removed. The proposed multi-use trail and some internal roadways can also be seen beyond the landscaping, which is adjacent to Tam O' Shanter Drive. The proposed Club area would be located beyond the Residential Twin units seen in this figure; however, due to the downward sloping topography of the project site from this location, the proposed Club area would not be visible from Tam O' Shanter Drive.

KOP and Visual Simulation 3

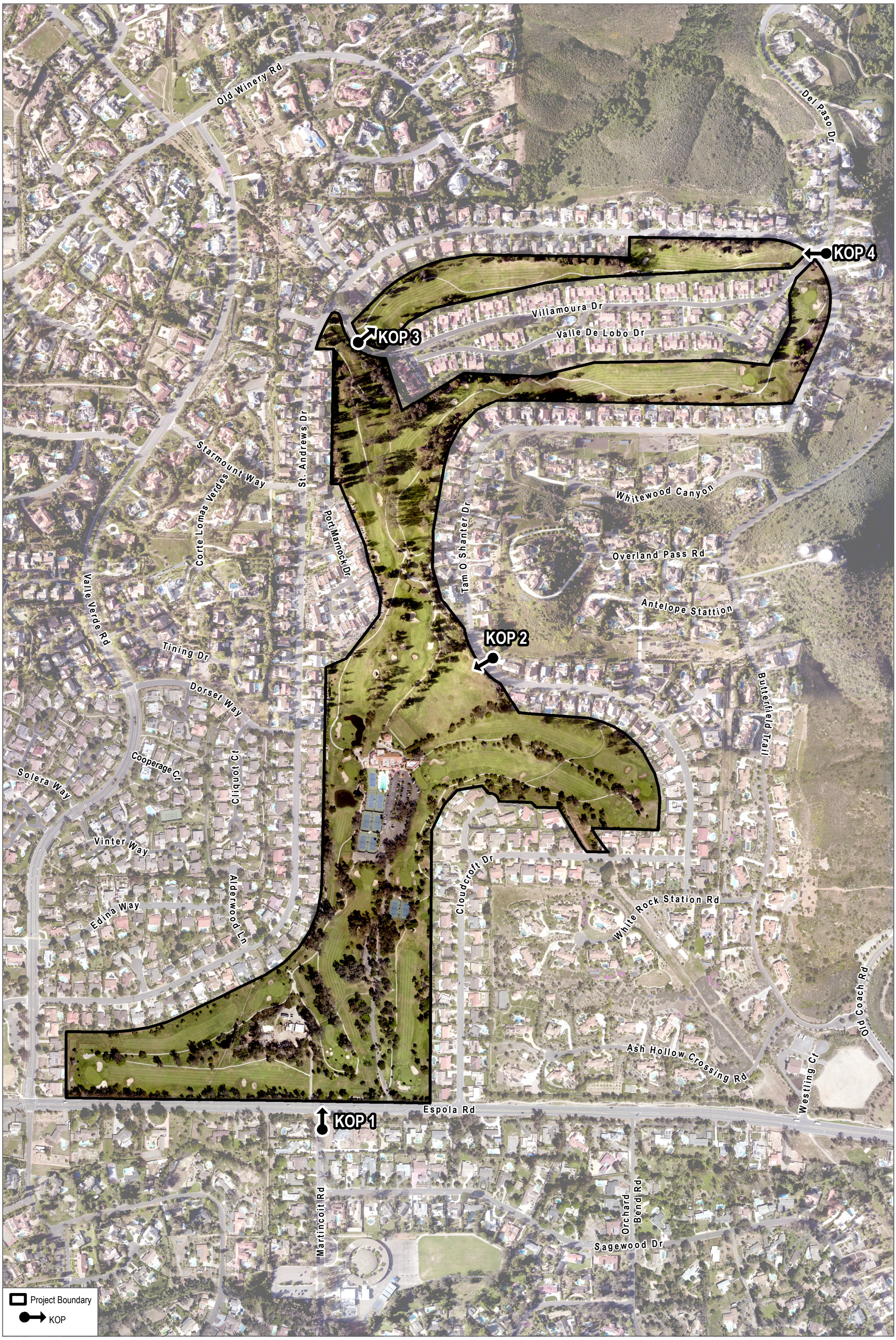
As depicted in Figure 4.1-4, Visual Simulation 3: St. Andrews Dr. & Villamoura Dr., KOP 3 is located along Villamoura Drive, approximately 210 feet southeast of St. Andrews Drive. This view is oriented towards the proposed agrifields, looking east into the project site. As shown, some low-lying crops and a few trees associated with the proposed agrifields would be visible from this location. Additionally, the existing fence would be removed and some existing houses would be visible in the background.

KOP and Visual Simulation 4

As depicted in Figure 4.1-5, Visual Simulation 4: St. Andrews Dr. & Del Paseo Dr., KOP 4 is located at the intersection of St. Andrews Drive and Del Paseo Drive, looking southwest into the project site. From this location, a proposed pollinator garden can be seen in the foreground of the project site. The top of this garden is approximately 10 feet above the grade of the road, as this was previously a Tee box associated with the former StoneRidge golf course. Due to this grade, views of the proposed Residential Homestead (R-H) housing units beyond this garden would be limited. However, the top of one proposed residence would be partially visible, as shown.

4.1.8 Level of Significance After Mitigation

As previously stated, all potential impacts to aesthetics as a result of the proposed project would be less than significant, and no mitigation would be required.



SOURCE: RECON 2019; SANGIS 2017, 2019

DUDEK

0 250 500 Feet

FIGURE 4.1-1

KOP Locations

The Farm in Poway

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ABOVE: KOP 1

BELOW: Visual Simulation 1



FIGURE 4.1-2

Visual Simulation 1: Espola Rd. & Martincoit Rd.

The Farm in Poway

DUDEK

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ABOVE: KOP 2

BELOW: Visual Simulation 2



FIGURE 4.1-3

Visual Simulation 2: Tam O' Shanter Dr.

The Farm in Poway

DUDEK

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ABOVE: KOP 3

BELOW: Visual Simulation 3



FIGURE 4.1-4

Visual Simulation 3: St. Andrews Dr. & Villamoura Dr.

The Farm in Poway

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ABOVE: KOP 4

BELOW: Visual Simulation 4



FIGURE 4.1-5

Visual Simulation 4: St. Andrews Dr. & Del Paseo Dr.

The Farm in Poway

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4.2 Air Quality

This section describes the existing air quality conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The analysis is based on the review of existing air quality; technical data; applicable laws, regulations, and guidelines; and the air quality and greenhouse gas technical report prepared by Dudek in January 2020. The Air Quality and Greenhouse Gas Emissions Analysis Technical Report for The Farm in Poway is included in this Environmental Impact Report (EIR) as Appendix B.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to air quality focused on the following topics:

- Decreased air quality due to development
- Increased vehicle emissions

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.2.1 Existing Conditions

Environmental Setting

The project site is located within the San Diego Air Basin (SDAB) and is subject to the SDAPCD guidelines and regulations. The SDAB is one of 15 air basins that geographically divide the State of California. The weather of the San Diego region, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average temperature ranges (in °F) from the mid-40s to the high 90s. Most of the region's precipitation falls from November to April with infrequent (approximately 10 percent) precipitation during the summer. The average seasonal precipitation along the coast is approximately 10 inches; the amount increases with elevation as moist air is lifted over the mountains to the east.

The topography in the San Diego region varies greatly, from beaches on the west to mountains and desert on the east. Along with local meteorology, the topography influences the dispersal and movement of pollutants in the SDAB. The mountains to the east prohibit dispersal of pollutants in that direction and help trap them in inversion layers as described in the next section.

The interaction of ocean, land, and the Pacific High Pressure Zone maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

Meteorological and Topographical Conditions

The SDAB lies in the southwest corner of California, comprises the entire San Diego region (covering approximately 4,260 square miles), and is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The climate also drives the pollutant levels. The climate of San Diego is classified as Mediterranean, but it is incredibly diverse due to the topography. The climate is dominated by the Pacific High pressure system that results in mild, dry summers and mild, wet winters. The Pacific High drives the prevailing winds in the SDAB. The winds tend to blow onshore during the daytime and offshore at night. In the fall months, the SDAB is often impacted by Santa Ana winds. These winds are the result of a high pressure system over the Nevada–Utah region that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean (SDAPCD 2015a). The winds blow the air basin's pollutants out to sea. However, a weak Santa Ana can transport air pollution from the South Coast Air Basin and greatly increase the San Diego ozone (O_3) concentrations. A strong Santa Ana also primes the vegetation for firestorm conditions.

The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. Another type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce O_3, commonly known as smog.

Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to emissions of carbon monoxide (CO) and oxides of nitrogen (NO_x). CO concentrations are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and the large number of motor vehicles traveling. Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the basin are associated with heavy traffic. Nitrogen dioxide (NO_2) levels are also generally higher during fall and winter days when O_3 concentrations are lower.

The local climate in the southern part of the County of San Diego (County) is characterized as semi-arid with consistently mild, warmer temperatures throughout the year. The average summertime high temperature in the region is approximately 86°F. The average wintertime low temperature is approximately 39°F. Average precipitation in the local area is approximately 13.2 inches per year, with the bulk of precipitation falling between November and March (WRCC 2017).

Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards (criteria) for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, NO_2, CO, sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.[1] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

[1] The descriptions of each of the criteria air pollutants and associated health effects are based on the EPA's (2016a) Criteria Air Pollutants and the CARB (2016a) Glossary of Air Pollutant Terms.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly NO_x and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric ozone) and at the Earth's surface in the troposphere (ozone).[2] The O_3 that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is, thus, considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

Nitrogen Dioxide and Oxides of Nitrogen. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016b).

NO_x plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources of NO_x are transportation and stationary fuel combustion sources, such as electric utility and industrial boilers.

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

[2] The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward about five miles at the poles and about 10 miles at the equator.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) consists of particulate matter that is 10 microns or less in diameter (about 1/7 the thickness of a human hair). Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) consists of particulate matter that is 2.5 microns or less in diameter (roughly 1/28 the diameter of a human hair). $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOCs.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$ (EPA 2009).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the primary sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

Sulfates. Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere. Sulfates can result in respiratory impairment and reduced visibility.

Vinyl Chloride. Vinyl chloride is a colorless gas with a mild, sweet odor that has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in the air can cause nervous system effects such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

Hydrogen Sulfide. Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

Visibility-Reducing Particles. Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for $PM_{2.5}$, described above.

Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern

over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over five years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90 percent of DPM is less than one micrometer in diameter (about 1/70th the diameter of a human hair) and, thus, is a subset of $PM_{2.5}$ (CARB 2016a). DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2016a). CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) (17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines, including on-road diesel engines from trucks, buses, and cars; and off-road diesel engines from locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70 percent of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2016b). Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and, overall, is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Valley Fever. Coccidioidomycosis, more commonly known as "Valley Fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The fungus is very prevalent in the soils of California's San Joaquin Valley, particularly in Kern County. Kern County is considered a highly endemic county (i.e., more than 20 cases annually of Valley Fever per 100,000 people) based on the incidence rates reported through 2016 (California Department of Public Health 2017). The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils.

The County is not considered a highly endemic region for Valley Fever, as the latest report from the California Department of Public Health indicated the County has 4.4 cases per 100,000 people (California Department of Public Health 2017). Similarly, among the total reported incidents of Valley Fever from 2008 through 2017, only 0.8 percent of the cases reported in the County were in in the City's zip code (92064) (County of San Diego 2018).

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The SDAPCD identifies sensitive receptors as those who are especially susceptible to adverse health effects from exposure to TACs, such as children, the elderly, and the ill. Sensitive receptors include schools (grades Kindergarten through 12), day care centers, nursing homes, retirement homes, health clinics, and hospitals within two kilometers of the facility (SDAPCD 2015b). The closest sensitive receptors to the proposed project are residences adjacent to the property boundary.

4.2.2 Relevant Plans, Policies, and Ordinances

Federal

Criteria Air Pollutants

The federal Clean Air Act (CAA), passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the CAA, including the setting of the National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutant standards, approval of state attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric O_3 protection, and enforcement provisions.

Under the CAA, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The CAA requires the EPA to reassess the NAAQS at least every five years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a State Implementation Plan (SIP) that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants

The 1977 federal CAA amendments required the EPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. Hazardous air pollutants include certain VOCs, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 CAA amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

State

Criteria Air Pollutants

The federal CAA delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the CAA and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (one-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.2-1.

Table 4.2-1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary[c,d]*	*Secondary[c,e]*
O_3	1 hour	0.09 ppm (180 μg/m³)	—	Same as Primary Standard[f]
	8 hours	0.070 ppm (137 μg/m³)	0.070 ppm (137 μg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 μg/m³)	0.100 ppm (188 μg/m³)	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	0.053 ppm (100 μg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 μg/m³)	0.075 ppm (196 μg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 μg/m³)
	24 hours	0.04 ppm (105 μg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 μg/m³	150 μg/m³	Same as Primary Standard
	Annual Arithmetic Mean	20 μg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 μg/m³	Same as Primary Standard
	Annual Arithmetic Mean	12 μg/m³	12.0 μg/m³	15.0 μg/m³

Table 4.2-1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary*[c,d]	*Secondary*[c,e]
Lead[j,k]	30-day Average	1.5 μg/m³	—	—
	Calendar Quarter	—	1.5 μg/m³ (for certain areas)[k]	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 μg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 μg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 μg/m³)	—	—
Sulfates	24 hours	25 μg/m³	—	—
Visibility reducing particles	8 hour (10 a.m. to 6 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70 percent	—	—

Source: CARB 2016b; EPA 2016c.

Notes: O_3 = ozone; ppm = parts per million by volume; μg/m³ = micrograms per cubic meter; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m³= milligrams per cubic meter; SO_2 = sulfur dioxide; PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns.

[a] California standards for O_3, CO, SO_2 (one-hour and 24-hour), NO_2, suspended particulate matter (PM_{10}, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California Ambient Air Quality Standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest eight-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

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

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

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

[f] On October 1, 2015, the national eight-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

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

[h] On June 2, 2010, a new one-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national one-hour standard, the three-year average of the annual 99th percentile of the one-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[i] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m³ to 12 μg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m³, as was the annual secondary standard of 15 μg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m³ were also retained. The form of the annual primary and secondary standards is the annual mean averaged over three years.

[j] California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k] The national standard for lead was revised on October 15, 2008, to a rolling three-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

Toxic Air Contaminants

A TAC is defined by California law as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. Federal laws use the hazardous air pollutants to refer to the same types of compounds that are referred to as TACs under state law. California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588).

AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. Pursuant to AB 2588, existing facilities that emit air pollutants above specified levels were required to (1) prepare a TAC emission inventory plan and report; (2) prepare a risk assessment if TAC emissions were significant; (3) notify the public of significant risk levels; and (4) if health impacts were above specified levels, prepare and implement risk reduction measures.

The following regulatory measures pertain to the reduction of DPM and criteria pollutant emissions from off-road equipment and diesel-fueled vehicles.

Idling of Commercial Heavy Duty Trucks (13 CCR 2485)

In July 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to control emissions from idling trucks. The ATCM prohibits idling for more than five minutes for all commercial trucks with a gross vehicle weight rating over 10,000 pounds. The ATCM contains an exception that allows trucks to idle while queuing or involved in operational activities.

In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.)

In July 2007, CARB adopted an ATCM for in-use off-road diesel vehicles. This regulation requires that specific fleet average requirements are met for NO_x emissions and for particulate matter emissions. Where average requirements cannot be met, best available control technology requirements apply. The regulation also includes several recordkeeping and reporting requirements.

In response to AB 8 2X, the regulations were revised in July 2009 (effective December 3, 2009) to allow a partial postponement of the compliance schedule in 2011 and 2012 for existing fleets. On December 17, 2010, CARB adopted additional revisions to further delay the deadlines reflecting reductions in diesel emissions due to the poor economy and overestimates of diesel emissions in California. The revisions delayed the first compliance date until no earlier than January 1, 2014, for large fleets, with final compliance by January 1, 2023. The compliance dates for medium fleets were delayed until an initial date of January 1, 2017, and final compliance date of January 1, 2023. The compliance dates for small fleets were delayed until an initial date of January 1, 2019, and final compliance date of January 1, 2028. Correspondingly, the fleet average targets were made more stringent in future compliance years. The revisions also accelerated the phaseout of older equipment with newer equipment

added to existing large and medium fleets over time, requiring the addition of Tier 2 or higher engines starting on March 1, 2011, with some exceptions: Tier 2 or higher engines on January 1, 2013, without exception; and Tier 3 or higher engines on January 1, 2018 (January 1, 2023, for small fleets).

On October 28, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulation. The amendments included revisions to the applicability section and additions and revisions to the definition. The initial date for requiring the addition of Tier 2 or higher engines for large and medium fleets, with some exceptions, was revised to January 1, 2012. New provisions also allow for the removal of emission control devices for safety or visibility purposes. The regulation also was amended to combine the particulate matter and NO_x fleet average targets under one, instead of two, sections. The amended fleet average targets are based on the fleet's NO_x fleet average, and the previous section regarding particulate matter performance requirements was deleted completely. The best available control technology requirements, if a fleet cannot comply with the fleet average requirements, were restructured and clarified. Other amendments to the regulations included minor administrative changes to the regulatory text.

In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025)

On December 12, 2008, CARB adopted an ATCM to reduce NO_x and particulate matter emissions from most in-use on-road diesel trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. The original ATCM regulation required fleets of on-road trucks to limit their NO_x and particulate matter emissions through a combination of exhaust retrofit equipment and new vehicles. The regulation limited particulate matter emissions for most fleets by 2011, and limited NO_x emissions for most fleets by 2013. The regulation did not require any vehicle to be replaced before 2012 and never required all vehicles in a fleet be replaced.

In December 2009, the CARB Governing Board directed staff to evaluate amendments that would provide additional flexibility for fleets adversely affected by the struggling California economy. On December 17, 2010, CARB revised this ATCM to delay its implementation along with limited relaxation of its requirements. Starting on January 1, 2015, lighter trucks with a gross vehicle weight rating of 14,001 to 26,000 pounds with 20-year-old or older engines need to be replaced with newer trucks (2010 model year emissions equivalent as defined in the regulation). Trucks with a gross vehicle weight rating greater than 26,000 pounds with 1995 model year or older engines needed to be replaced as of January 1, 2015. Trucks with 1996 to 2006 model year engines must install a Level 3 (85 percent control) diesel particulate filter starting on January 1, 2012, to January 1, 2014, depending on the model year, and then must be replaced after eight years. Trucks with 2007 to 2009 model year engines have no requirements until 2023, at which time they must be replaced with 2010 model year emissions-equivalent engines, as defined in the regulation. Trucks with 2010 model year engines would meet the final compliance requirements. The ATCM provides a phase-in option under which a fleet operator would equip a percentage of trucks in the fleet with diesel particulate filters, starting at 30 percent as of January 1, 2012, with 100 percent by January 1, 2016. Under each option, delayed compliance is granted to fleet operators who have or will comply with requirements before the required deadlines.

On September 19, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulations, including revisions to the compliance schedule for vehicles with a gross vehicle weight rating of 26,000 pounds or less to clarify that *all* vehicles must be equipped with 2010 model year emissions equivalent engines by 2023. The amendments included revised and additional credits for fleets that have downsized; implement early particulate matter retrofits; incorporate hybrid vehicles, alternative-fueled vehicles, and vehicles with heavy-duty pilot ignition engines; and implement early addition of newer vehicles. The amendments included provisions for additional flexibility, such as for low-usage construction trucks, and revisions to previous exemptions, delays, and extensions. Other amendments to the regulations included minor administrative changes to the regulatory text, such as recordkeeping and reporting requirements related to other revisions.

California Health and Safety Code Section 41700

Section 41700 of the California Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

Local

San Diego Air Pollution Control District

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The proposed project area is located within the SDAB and is subject to the guidelines and regulations of the SDAPCD.

In the County, O_3 and particulate matter are the pollutants of main concern, since exceedances of state ambient air quality standards for those pollutants have been observed in most years. For this reason, the SDAB has been designated as a nonattainment area for the state PM_{10}, $PM_{2.5}$, and O_3 standards. The SDAB is also a federal O_3 attainment (maintenance) area for 1997 eight-hour O_3 standard, an O_3 nonattainment area for the 2008 eight-hour O_3 standard, and a CO maintenance area (western and central part of the SDAB only, including the proposed project area).

Federal Attainment Plans

In December 2016, the SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County (2008 O_3 NAAQS), which indicated that local controls and state programs would allow the region to reach attainment of the federal eight-hour O_3 standard (1997 O_3 NAAQS) by 2018 (SDAPCD 2016a). In this plan, SDAPCD relies on the Regional Air Quality Strategy (RAQS) to demonstrate how the region will comply with the federal O_3 standard. The RAQS details how the region will manage and reduce O_3 precursors (NO_x and VOCs) by identifying measures and regulations intended to reduce these pollutants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

Currently, the County is designated as moderate nonattainment for the 2008 NAAQS and maintenance for the 1997 NAAQS. As documented in the 2016 Eight-Hour Ozone Attainment Plan for San Diego County, the County has a likely chance of obtaining attainment due to the transition to low-emission cars, stricter new source review rules, and continuing the requirement of general conformity for military growth and the San Diego International Airport. The County will also continue emission control measures, including ongoing implementation of existing regulations in O_3 precursor reduction to stationary and area-wide sources, subsequent inspections of facilities and sources, and the adoption of laws requiring best available retrofit control technology for control of emissions (SDAPCD 2016a).

State Attainment Plans

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The RAQS for the SDAB was initially adopted in 1991 and is updated on a triennial basis, most recently in 2016 (SDAPCD 2016b). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County and the cities in the County, to forecast future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans (SANDAG 2017a, 2017b).

In December 2016, the SDAPCD adopted the revised RAQS for the County. Since 2007, the San Diego region reduced daily VOC emissions and NO_x emissions by 3.9 percent and 7.0 percent, respectively; the SDAPCD expects to continue reductions through 2035 (SDAPCD 2016b). These reductions were achieved through implementation of six VOC control measures and three NO_x control measures adopted in the SDAPCD's 2009 RAQS (SDAPCD 2009a); in addition, the SDAPCD is considering additional measures, including three VOC measures and four control measures to reduce 0.3 daily tons of VOC and 1.2 daily tons of NO_x, provided they are found to be feasible region-wide. In addition, SDAPCD has implemented nine incentive-based programs, has worked with SANDAG to implement regional transportation control measures, and has reaffirmed the state emission offset repeal.

In regards to particulate matter emissions-reduction efforts, in December 2005, the SDAPCD prepared a report titled Measures to Reduce Particulate Matter in San Diego County to address implementation of Senate Bill (SB) 656 in the County (SB 656 required additional controls to reduce ambient concentrations of PM_{10} and $PM_{2.5}$) (SDAPCD 2005). In the report, SDAPCD evaluated implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carry-out and track-out removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust (SDAPCD 2005).

SDAPCD Rules and Regulations

As stated above, the SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD and would apply to the proposed project.

SDAPCD Regulation II: Permits; Rule 20.2: New Source Review Non-Major Stationary Sources

This rule requires new or modified stationary source units (that are not major stationary sources) with the potential to emit 10 pounds per day or more of VOC, NO_x, SO_x, or PM_{10} to be equipped with best available control technology. For those units with a potential to emit above Air Quality Impact Assessments Trigger Levels, the units must demonstrate that such emissions would not violate or interfere with the attainment of any national air quality standard (SDAPCD 2016b).

The proposed project does not propose specific stationary sources. If stationary sources were to be included as part of the proposed project, or at a later date, those sources would be subject to Rule 20.2 and would require appropriate operating permits from the SDAPCD. Because the SDAPCD has not adopted specific criteria air pollutant thresholds for CEQA analyses, the thresholds identified in Rule 20.2 are utilized in this analysis as screening-level thresholds to evaluate project-level impacts, as discussed in Section 4.2.3, Thresholds of Significance.

SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions

This rule prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any period of 60 consecutive minutes, which is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997).

Construction of the proposed project may result in visible emissions, primarily during earth-disturbing activities, which would be subject to SDAPCD Rule 50. Although visible emissions are less likely to occur during operation of the proposed project, compliance with SDAPCD Rule 50 would be required during both construction and operational phases.

SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance

This rule prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1969).

Any criteria air pollutant emissions, TAC emissions, or odors that would be generated during construction or operation of the proposed project would be subject to SDAPCD Rule 51. Violations can be reported to the SDAPCD in the form of an air quality complaint by telephone, email, and online form. Complaints are investigated by the SDAPCD as soon as possible.

SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust

This rule regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project area (SDAPCD 2009b).

Construction of the proposed project, primarily during earth-disturbing activities, may result in fugitive dust emissions that would be subject to SDAPCD Rule 55. Fugitive dust emissions are not anticipated during operation of the proposed project.

SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings

This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015b). Construction and operation of the proposed project would include application of architectural coatings (e.g., paint and other finishes), which are subject to SDAPCD Rule 67.0.1. Architectural coatings used in the reapplication of coatings during operation of the proposed project would be subject to the VOC content limits identified in SDAPCD Rule 67.0.1, which applies to coatings manufactured, sold, or distributed within the County.

SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1200: Toxic Air Contaminants - New Source Review

This rule requires new or modified stationary source units with the potential to emit TACs above rule threshold levels to either demonstrate that they will not increase the maximum incremental cancer risk above one in 1 million at every receptor location; demonstrate that toxics best available control technology will be employed if maximum incremental cancer risk is equal to or less than 10 in 1 million; or demonstrate compliance with the SDAPCD's protocol for those sources with an increase in maximum incremental cancer risk at any receptor location of greater than 10 in 1 million but less than 100 in 1 million (SDAPCD 2017a).

The proposed project does not currently include specific stationary sources that would generate TACs that are not commonly associated with residential and commercial development projects. If stationary sources with the potential to emit TACs were to be included as part of the proposed project—or if they were added at a later date—those sources would be subject to SDAPCD Rule 1200, and would be subject to new source review requirements.

SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1210: Toxic Air Contaminant Public Health Risks –Public Notification and Risk Reduction

This rule requires each stationary source required to prepare a public risk assessment to provide written public notice of risks at or above the following levels: maximum incremental cancer risks equal to or greater than 10 in 1 million, cancer burden equal to or greater than 1.0, total acute non-cancer health hazard index equal to or greater than 1.0, or total chronic non-cancer health hazard index equal to or greater than 1.0 (SDAPCD 2017b).

The proposed project does not currently include specific stationary sources that would generate TACs. If stationary sources with the potential to emit TACs were to be included as part of the proposed project—or if they were added at a later date—those sources would be subject to SDAPCD Rule 1210 and would be subject to public notification and risk reduction requirements.

San Diego Association of Governments

SANDAG is the regional planning agency for the County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SANDAG serves as the federally designated metropolitan planning organization for the County. With respect to air quality planning and other regional issues, SANDAG has prepared San Diego Forward: The Regional Plan (Regional Plan) for the San Diego region (SANDAG 2015). The Regional Plan combines the big-picture vision for how the region will grow over the next 35 years with an implementation program to help make that vision a reality. The Regional Plan, including its Sustainable Communities Strategy (SCS), is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system so that it meets the diverse needs of the San Diego region through 2050.

In regards to air quality, the Regional Plan sets the policy context in which SANDAG participates in and responds to the air district's air quality plans and builds off the air district's air quality plan processes that are designed to meet health-based criteria pollutant standards in several ways (SANDAG 2015). First, it complements air quality plans by providing guidance and incentives for public agencies to consider best practices that support the technology-based control measures in air quality plans. Second, the Regional Plan emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

On September 23, 2016, SANDAG's Board of Directors adopted the final 2016 Regional Transportation Improvement Program, which is a multi-billion dollar, multi-year program of proposed major transportation projects in the San Diego region. Transportation projects funded with federal, state, and TransNet (the San Diego transportation sales tax program) must be included in an approved Regional Transportation Improvement Program. The programming of locally funded projects also may be programmed at the discretion of the agency. The 2016 Regional Transportation Improvement Program covers five fiscal years and incrementally implements the Regional Plan (SANDAG 2016).

Poway Comprehensive Plan: General Plan

The Poway Comprehensive Plan: General Plan (General Plan) includes the following policy and strategies to limit air pollution (City of Poway 1991):

Policy E – Air, Water and Soil Pollution: The City shall work locally and at the regional level to reduce air, water, and soil pollution within Poway.

- **Strategy 1:** Work closely with regional agencies to help control all forms of pollution.
- **Strategy 2:** Seek to promote a development pattern that reduces daily trips for shopping, school, and recreation.
- **Strategy 3:** Encourage ridesharing, the use of transit and other transportation systems management programs to reduce the number of vehicle miles traveled and traffic congestion.
- **Strategy 4:** Consider the use of clean fuel systems for new local government fleet vehicles.
- **Strategy 5:** Implement plans and programs to phase-in energy conservation improvements.
- **Strategy 6:** Investigate incentives and regulations to reduce emissions from swimming pools, residential and commercial water heating and heaters.

4.2.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to air quality are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to air quality would occur if the project would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the project would have a significant impact on air quality.

As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 requiring the preparation of Air Quality Impact Assessments for permitted stationary sources (SDAPCD 2016c). The SDAPCD sets forth quantitative emissions thresholds below which a stationary source would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4.2-2 are exceeded.

Table 4.2-2. San Diego Air Pollution Control District Air Quality Significance Thresholds

Construction Emissions			
Pollutant	*Total Emissions (Pounds per Day)*		
Respirable Particulate Matter (PM_{10})	100		
Fine Particulate Matter ($PM_{2.5}$)	55		
Oxides of Nitrogen (NO_x)	250		
Oxides of Sulfur (SO_x)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOCs)	75[a]		
Operational Emissions			
	Total Emissions		
Pollutant	*Pounds per Hour*	*Pounds per Day*	*Tons per Year*
PM_{10}	—	100	15
$PM_{2.5}$	—	55	10
NO_x	25	250	40
SO_x	25	250	40
CO	100	550	100
Operational Emissions			
	Total Emissions		
Pollutant	*Pounds per Hour*	*Pounds per Day*	*Tons per Year*
Lead and Lead Compounds	—	3.2	0.6
VOCs	—	75[a]	13.7

Sources: SDAPCD 1995; SDAPCD 2016b.
Notes: — = not available.
[a] VOC threshold based on the threshold of significance for VOCs from the South Coast Air Quality Management District for the Coachella Valley as stated in the San Diego County Guidelines for Determining Significance.

The thresholds listed in Table 4.2-2 represent screening-level thresholds that can be used to evaluate whether project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 4.2-2, the proposed project could have the potential to result in a cumulatively considerable net increase in these pollutants and, thus, could have a significant impact on the ambient air quality.

With respect to odors, SDAPCD Rule 51 (Public Nuisance) prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

The SDAPCD document, Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments, provides guidance with which to perform health risk assessments (HRAs) within the SDAB. The current SDAPCD thresholds of significance for TAC emissions from the operations of both permitted and non-permitted sources are combined and are less than 10 in 1 million for cancer and less than one for the chronic hazard index (SDAPCD 2015c).

4.2.4 Impacts Analysis

Would the project conflict with or obstruct implementation of the applicable air quality plan?

The SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the basin—specifically, the SIP and RAQS.[3] The federal O_3 maintenance plan, which is part of the SIP, was adopted in 2012. The most recent O_3 attainment plan was adopted in 2016. The SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the SDAB based on the NAAQS. The RAQS was initially adopted in 1991 and is updated on a triennial basis (most recently in 2016). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The SIP 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 as a whole and the cities in the County, to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans.

If a project proposes development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the SIP and RAQS and may contribute to a potentially significant cumulative impact on air quality. The project site is designated as "Open Space" in the City's General Plan, and is zoned as "Open Space – Recreation (OS-R)" (City of Poway 1991). Therefore, the proposed project would not be consistent with the land use zoning for the site. However, a General Plan amendment and zoning amendment would be processed concurrently with The Farm in Poway Specific Plan (Specific Plan) to re-designate the project site as "Planned Community (PC-9)" (The Farm in Poway LLC 2020).

Implementation of the proposed project would result in an increase in 160 residential units, as well as additional open space and amenities as described in the Specific Plan (The Farm in Poway LLC 2020). SANDAG's 2050 Regional Growth Forecast, was adopted in October 2013 and is the current growth forecast; it estimates that the City would have 16,855 units in 2020 and 17,685 units in 2035 (SANDAG 2013). This would equate to an additional 55 units per year from 2020 to 2035. The proposed project is expected to bring 160 units to market in 2025. However, the units would be released to the public in phases as they are constructed and on average would result in the addition of 40 units per year; thus falling within SANDAG's growth projection for housing for that year. Therefore, while the proposed project would not be consistent with the current land use designation for the site, the proposed project would not conflict with SANDAG's regional growth forecast for the City, which accounts for residential growth in the City.

While the SDAPCD and City do not provide guidance regarding the analysis of impacts associated with air quality plan conformance, the County's Guidelines for Determining Significance and Report and Format and Content Requirements – Air Quality does discuss conformance with the RAQS (County of San Diego 2007). The guidance indicates that if a project, in conjunction with other projects, contributes to growth projections that would not exceed SANDAG's growth projections for the City, the project would not be in conflict with the RAQS (County of San Diego 2007). As previously discussed, the proposed project would not contribute to growth in the region that is not already accounted for. Therefore, impacts would be **less than significant**.

[3] For the purpose of this discussion, the relevant federal air quality plan is the ozone maintenance plan (SDAPCD 2012). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SDAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

Emissions from the construction phase of the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 (CAPCOA 2017).

The proposed project would develop 160 single-family homes and a mix of open space and recreational uses. For the purposes of modeling, it was assumed that construction of the proposed project would commence in January 2021[4] and would last approximately 48 months, ending in December 2024. The analysis contained herein is based on the following subset area schedule assumptions (duration of phases is approximate):

- Demolition – two months
- Site Preparation – six months
- Grading – 14 months
- Building Construction – 34 months
- Paving – 2.5 months
- Architectural Coating – 3 months

The majority of the phases listed above would occur concurrently and would not occur sequentially in isolation. The estimated construction duration was provided by the project applicant. Detailed construction equipment modeling assumptions are provided in Appendix B.

Construction Emissions

Construction of the proposed project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (worker vehicle trips). Construction emissions can vary substantially day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions.

Criteria air pollutant emissions associated with construction activity were quantified using CalEEMod. Default values provided by the program were used where detailed proposed project information was not available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Appendix B.

Implementation of the proposed project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, asphalt pavement application, and architectural coatings. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10}

[4] The analysis assumes a construction start date of January 2021, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

and $PM_{2.5}$ emissions. The proposed project would be subject to SDAPCD Rule 55, Fugitive Dust Control. This rule requires that the proposed project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit fugitive dust (PM_{10} and $PM_{2.5}$) generated during grading and construction activities. To account for dust control measures in the calculations, **project design feature (PDF) AQ-1** would be implemented at active sites. PDF AQ-1 would ensure that active sites be watered at least three times daily, a soil stabilizer would be used, and unpaved road travel would be limited to 15 miles per hour.

Exhaust from internal combustion engines used by construction equipment and worker vehicles would result in emissions of VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$. The application of asphalt pavement and architectural coatings would also produce VOC emissions.

Table 4.2-3 shows the estimated maximum daily construction emissions associated with construction of the proposed project without mitigation. Complete details of the emissions calculations are provided in Appendix B.

Table 4.2-3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
2021	12.22	264.41	563.41	14.58	27.83	7.40
2022	9.37	73.12	72.59	0.27	78.26	11.23
2023	6.80	51.12	53.64	0.24	75.25	10.27
2024	73.29	50.81	54.36	0.24	77.51	10.54
Maximum	**73.29**	**264.41**	**563.41**	**14.58**	**78.26**	**11.23**
SDAPCD Threshold	*75*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**Yes**	**Yes**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District; CalEEMod = California Emissions Estimator Model.
See Appendix B for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. Although not considered mitigation, these emissions reflect the CalEEMod "mitigated" output, which accounts for the required compliance with SDAPCD Rule 55 (Fugitive Dust) and Rule 67.0.1 (Architectural Coatings).

As shown in Table 4.2-3, daily construction emissions would exceed the significance thresholds for NO_x and CO. Therefore, impacts during construction would be **potentially significant** (**Impact AQ-1**) and mitigation would be required.

Operational Emissions

Operation of the proposed project would generate VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from mobile sources (vehicle trips), area sources (consumer products, landscape maintenance equipment), and energy sources. Pollutant emissions associated with long-term operations were quantified using CalEEMod. Project-generated mobile source emissions were estimated in CalEEMod based on project-specific trip rates and VMT. CalEEMod default values were used to estimate emissions from the proposed project area and energy sources.

Table 4.2-4 presents the maximum daily area, energy, and mobile source emissions associated with operation (Year 2025) of the proposed project. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix B.

Table 4.2-4. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Emission Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Area	16.90	2.81	14.37	0.02	0.29	0.29
Energy	0.19	1.65	1.05	0.01	0.13	0.13
Mobile	3.51	13.63	41.70	0.16	15.66	4.27
Total	**20.60**	**18.09**	**57.12**	**0.19**	**16.08**	**4.69**
SDAPCD Threshold	*75*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District; CalEEMod = California Emissions Estimator Model.
See Appendix B for complete results.
Negative values are presented in parentheses.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. These emissions reflect the CalEEMod "mitigated" output, which accounts for compliance with SDAPCD Rule 67.0.1 (Architectural Coatings).

As shown in Table 4.2-4, the combined daily area, energy, and mobile source emissions would not exceed the SDAPCD's operational thresholds for VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$. The SDAB is a nonattainment area for O_3 under the NAAQS and CAAQS. The poor air quality in the SDAB is the result of cumulative emissions from motor vehicles, off-road equipment, commercial and industrial facilities, and other emission sources. Projects that emit these pollutants or their precursors (i.e., VOCs and NO_x for O_3) potentially contribute to poor air quality. In analyzing cumulative impacts from a project, the analysis must specifically evaluate the project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. If the project does not exceed thresholds and is determined to have less-than-significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, a project would only be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

Additionally, for the SDAB, the RAQS serves as the long-term regional air quality planning document for the purpose of assessing cumulative operational emissions in the basin to ensure the SDAB continues to make progress toward NAAQS- and CAAQS-attainment status. As such, cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to air quality if, in combination, they would conflict with or obstruct implementation of the RAQS. Similarly, individual projects that are inconsistent with the regional planning documents upon which the RAQS is based would have the potential to result in cumulative operational impacts if they represent development and population increases beyond regional projections.

The SDAB has been designated as a federal nonattainment area for O_3 and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the basin. As discussed previously, the proposed project would not exceed significance thresholds during construction or operation.

Regarding long-term cumulative operational emissions in relation to consistency with local air quality plans, the SIP and RAQS serve as the primary air quality planning documents for the state and SDAB, respectively. The SIP and RAQS rely on SANDAG growth projections based on population, vehicle trends, and land use plans developed

by the cities and the County as part of the development of their general plans. Therefore, projects that propose development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS and would not be considered to result in cumulatively considerable impacts from operational emissions. As stated previously, the proposed project would be consistent with the existing zoning and land use designation for the site and would not result in significant regional growth that is not accounted for within the RAQS. As a result, the proposed project would not result in a cumulatively considerable contribution to regional O_3 concentrations or other criteria pollutant emissions. Cumulative impacts would be **potentially significant** during construction and **less than significant** during operation.

Would the project expose sensitive receptors to substantial pollutant concentrations?

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed "sensitive receptors" are the most serious hazards of existing air quality conditions in the area. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by CARB (2005), include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. As such, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The closest sensitive receptors to the proposed project are residences adjacent to the property boundaries. The proposed project would also introduce new on-site sensitive receptors (residences) to the area, although CEQA does not require the analysis of the impacts of the existing environment on the project's proposed residences.

Health Impacts of Toxic Air Contaminants

"Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have noncarcinogenic effects. TACs that would potentially be emitted during construction activities would be DPM emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to CARB ATCMs to reduce DPM emissions. According to the Office of Environmental Health Hazard Assessment, HRAs should be based on a 30-year exposure duration based on typical residency period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, the duration of proposed construction activities (approximately 48 months) would only constitute a small percentage of the total long-term exposure period and would not result in exposure of proximate sensitive receptors to substantial TACs. After proposed construction is completed, there would be no long-term source of TAC emissions during operation. The agrifields and community garden, which would be professionally managed, would be considered a land use that is commonly associated with odors due to the presence of fertilizers, pesticides, and herbicides. The agrifields and community garden would use minimal amounts of pesticides and fertilizers.

However, as a precautionary measure to ensure the most informational and conservative analysis possible, an HRA was performed to evaluate the risk from diesel exhaust emissions on existing sensitive receptors from construction activities. The HRA methodology was described in detail in Section 2.4.2.1 of Appendix B. Table 4.2-5 summarizes the results of the HRA for proposed project construction.

Table 4.2-5. Construction Activity Health Risk Assessment Results

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Cancer Risk	Per Million	27.6	10.0	**Potentially Significant**
HIC	Not Applicable	0.01	1.0	Less than Significant

Source: Appendix B
Notes: CEQA = California Environmental Quality Act; HIC = Chronic Hazard Index.

The results of the HRA demonstrate that the TAC exposure from construction diesel exhaust emissions would result in cancer risk on site above the 10 in 1 million threshold, as well as Chronic Hazard Index less than one. Therefore, TAC emissions from construction of the proposed project may expose sensitive receptors to substantial pollutant concentrations and would result in a **potentially significant** impact (**Impact AQ-2**).

Health Impacts of Carbon Monoxide

Mobile-source impacts occur on two basic scales of motion. Regionally, project-related travel would add to regional trip generation and increase the VMT within the local airshed and the SDAB. Locally, project-related traffic would be added to the City's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO "hotspots" in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing.

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. To verify that the proposed project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO hotspots was conducted. Linscott, Law & Greenspan prepared the Transportation Impact Analysis for The Farm in Poway in January 2020, which evaluated the level of service (LOS) (i.e., increased congestion) impacts at intersections affected by the proposed project (Appendix J). The potential for CO hotspots was evaluated based on the results of the traffic report. As the City does not have CO hotspot guidelines, the County's CO hotspot screening guidance was followed to determine if the proposed project would require a site-specific hotspot analysis (County of San Diego 2007). The County recommends that a quantitative analysis of CO hotspots be performed for intersections operating at or below a LOS of "E" and have peak-hour trips exceeding 3,000 trips. The proposed project's transportation impact analysis determined that there would be seven intersections that would operate at a LOS E or worse with five of the intersections have peak-hour trips exceeding 3,000 trips (Appendix J). Therefore, a quantitative analysis is required for the proposed project.

For each scenario (horizon year plus total project), the screening evaluation presents LOS and whether a quantitative CO hotspots analysis may be required. According to the CO Protocol, there is a cap on the number of intersections that need to be analyzed for any one project. For a single project with multiple intersections, only the three intersections representing the worst LOS ratings of the project, and, to the extent they are different intersections, the three intersections representing the highest traffic volumes, need be analyzed. For each intersection failing a screening test as described in this protocol, an additional intersection should be analyzed (Caltrans 2010).

Based on the CO hotspot screening evaluation (Appendix B), all of the five intersections that operate at LOS D or worse and exceeded 3,000 peak-hour trips had similar geometries. Therefore, the three intersections with the highest volumes were selected to represent that type of geometry. All intersections were evaluated in the Horizon scenarios for CO Hotspots. For each intersection, the highest volume (AM or PM) was used in the analysis as the worst-case scenario. The potential impact of the proposed project on local CO levels was assessed at these intersections with the Caltrans CL4 interface based on the California LINE Source Dispersion Model (CALINE4), which allows microscale CO concentrations to be estimated along each roadway corridor or near intersections (Caltrans 1998).

The emissions factor represents the weighted average emissions rate of the County vehicle fleet expressed in grams per mile per vehicle. Consistent with the traffic scenario, emissions factors for 2035 were used for the three intersections. Emissions factors were predicted by EMFAC2017 based on an average speed of five miles per hour for all of the intersections for approach and departure segments. The hourly traffic volume anticipated to travel on each link, in units of vehicles per hour, was based on information provided by the transportation impact assessment and modeling assumptions are outlined in Appendix B.

Four receptor locations were modeled at each intersection to determine CO ambient concentrations. A receptor was assumed on the sidewalk at each corner of the modeled intersections, to represent the future possibility of extended outdoor exposure. CO concentrations were modeled at these locations to assess the maximum potential CO exposure that could occur in 2035. A receptor height of 5.9 feet (1.8 meters) was used in accordance with Caltrans recommendations for all receptor locations (Caltrans 2010).

The Caltrans guidance recommends using the highest one-hour measurement in the last three years as the projected future one-hour CO background concentration for the analysis. A CO concentration of 1.7 parts per million (ppm) was recorded in 2016 for the Floyd Smith Drive monitoring station in El Cajon and was assumed in the CALINE4 model for 2035 (CARB 2016b). To estimate an eight-hour average CO concentration, a persistence factor of 0.6, as recommended for suburban locations in the Caltrans guidance (Caltrans 2010), was applied to the output values of predicted concentrations in ppm at each of the receptor locations.

The results of the model are shown in Table 4.2-6, and model input and output data are provided in Appendix B.

Table 4.2-6. CALINE4 Predicted Carbon Monoxide Concentrations

Intersection	Maximum Modeled Impact (ppm)	
	1-hour	*8-hour**
Pomerado Road at Twin Peaks Road	2.3	1.38
Pomerado Road at Rancho Bernardo Road	2.1	1.26
Pomerado Road at Bernardo Heights Pkwy Road	2.0	1.2

Source: Caltrans 1998 (CALINE4).
Notes: ppm = parts per million.
* Eight-hour concentrations were obtained by multiplying the one-hour concentration by a persistence factor of 0.6 (Caltrans 2010).

As shown in Table 4.2-6, the maximum CO concentration predicted for the one-hour averaging period at the studied intersections would be 2.3 ppm, which is below the one-hour CO CAAQS of 20 ppm (CARB 2016b). The maximum predicted eight-hour CO concentration of 1.38 ppm at the studied intersections would be below the eight-hour CO CAAQS of 9.0 ppm (CARB 2016b). Neither the one-hour nor eight-hour CAAQS would be equaled or exceeded at any of the intersections studied. Accordingly, the proposed project would not cause or contribute to

violations of the CAAQS and would not result in exposure of sensitive receptors to localized high concentrations of CO. As such, impacts would be **less than significant** to sensitive receptors with regard to potential CO hotspots resulting from the proposed project's contribution to cumulative traffic-related air quality impacts, and no mitigation would be required.

Health Impacts of Other Criteria Air Pollutants

Construction and operation of the proposed project would not result in emissions that exceed the SDAPCD's emission thresholds for any criteria air pollutants. Regarding VOCs, some VOCs are associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in the exceedances of the SDAPCD's thresholds. Generally, the VOCs in architectural coatings are of relatively low toxicity. Additionally, SDAPCD Rule 67.0.1 restricts the VOC content of coatings for both construction and operational applications.

In addition, VOCs and NO_x are precursors to O_3, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS (the SDAB is designated by the EPA as an attainment area for the one-hour O_3 NAAQS standard and 1997 eight-hour NAAQS standard). The health effects associated with O_3 are generally associated with reduced lung function. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SDAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the O_3 ambient air quality standards tend to occur between April and October when solar radiation is highest.

The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the VOC and NO_x emissions associated with proposed project construction and operations could minimally contribute to regional O_3 concentrations and the associated health impacts. Due to the minimal contribution during construction and operation, as well as the existing good air quality in Coastal San Diego areas, health impacts would be considered **less than significant**.

Regarding NO_2, according to the construction emissions analysis, construction of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health impacts from exposure to NO_2 and NO_x are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, these operations would be relatively short term. Additionally, off-road construction equipment would operate at various portions of the site and would not be concentrated in one portion of the site at any one time. Construction of the proposed project would not require any stationary emission sources that would create substantial, localized NO_x impacts. Therefore, health impacts would be considered **less than significant**.

The VOC and NO_x emissions, as described previously, would minimally contribute to regional O_3 concentrations and its associated health effects. In addition to O_3, NO_x emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO_2. The existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Thus, it is not expected that the proposed project's operational NO_x emissions would result in exceedances of the NO_2 standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. The associated CO "hotspots" were discussed previously as a less-than-significant impact. Thus, the proposed project's CO emissions would not contribute to significant health

effects associated with this pollutant. Likewise, PM_{10} and $PM_{2.5}$ would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter, would not obstruct the SDAB from coming into attainment for these pollutants, and would not contribute to significant health effects associated with particulates.

Based on the preceding considerations, health impacts associated with criteria air pollutants would be **less than significant**.

Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Section 41700 of the California Health and Safety Code and SDAPCD Rule 51 (Public Nuisance), 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. Projects required to obtain permits from SDAPCD are evaluated by SDAPCD staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

SDAPCD Rule 51 (Public Nuisance) also prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors. Odor issues are very subjective by the nature of odors themselves and due to the fact that their measurements are difficult to quantify. As a result, this guideline is qualitative and will focus on the existing and potential surrounding uses and location of sensitive receptors.

The occurrence and severity of potential odor impacts depends on numerous factors: the nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the proposed project. Potential odors produced during proposed construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be **less than significant.**

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The proposed project includes residential and commercial uses, as well as an on-site agrifields and a community garden. The agrifields and community garden, which would be professionally managed, would be considered a land use that is commonly associated with odors due to the presence of fertilizers, pesticides, and herbicides. The agrifields and community garden would be located as the furthest amenity from planned and existing residents, providing a buffer from any potential odors. While organic and biodynamic farming practices are preferred, as stated in the Specific Plan, limited use of pesticides may be permitted when other Integrated Pest Management methods have proven to be ineffective. To ensure compatibility of agricultural operations with residential uses, any chemical or pesticide use shall be in compliance with the applicable permits and regulations enforced by the California Department of Agriculture and County of San Diego Department of Agriculture (The Farm in Poway LLC 2020). Additionally, agricultural operations are

addressed in the Priority Development Project – Stormwater Quality Management Plan prepared by Hunsaker and Associates in January 2020 (Appendix G). These regulations and structural best management practices would guide the use of these materials. As the agrifields and community garden would apply pesticides and fertilizers in a limited and regulated manner, odors related to the agrifields and community garden would be minimal. Therefore, proposed project operations would result in an odor impact that would be **less than significant**.

The proposed project's impacts to air quality are listed as follows:

Impact AQ-1 The proposed project would result in daily construction emissions that would exceed the significance thresholds for NO_x and CO.

Impact AQ-2 The proposed project would result in TAC exposure from construction diesel exhaust emissions that would result in cancer risk on site above the 10 in 1 million threshold, as well as Chronic Hazard Index less than one. Therefore, TAC emissions from construction of the proposed project may expose sensitive receptors to substantial pollutant concentrations.

4.2.5 Cumulative Impacts

In analyzing cumulative impacts from a project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is listed as nonattainment for the state and federal ambient air quality standards. The project would have a cumulatively considerable impact if project-generated emissions would exceed thresholds for PM_{10}, $PM_{2.5}$, NO_x, and/or VOCs. If the project does not exceed thresholds and is determined to have less than significant project-specific impacts, it may still have a cumulatively considerable impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, the project would be considered to have a cumulative impact only if the project's contribution accounts for a significant proportion of the cumulative total emissions.

Background ambient air quality, as measured at the monitoring stations maintained and operated by SDAPCD, measures the concentrations of pollutants from existing sources; therefore, impacts from other past and present projects are included in the background ambient air quality data.

Geographic Extent

The geographic extent for the analysis of cumulative impacts related to air quality includes the northeastern corner of the SDAB (San Diego County). However, localized cumulative effects may occur from fugitive dust, CO, and NO_x. Due to the nonattainment status of the SDAB, the primary air pollutants of concern would be NO_x and VOCs, which are O_3 precursors, and PM_{10} and $PM_{2.5}$. NO_x and VOCs are primarily emitted from motor vehicles and construction equipment, while PM_{10} and $PM_{2.5}$ are emitted primarily as fugitive dust during construction. Because of the nature of ozone as a regional air pollutant, emissions from the entire geographic area for this cumulative impact analysis would tend to be important, although maximum ozone impacts generally occur downwind of the area in which the ozone precursors are released. PM_{10} and $PM_{2.5}$ impacts, on the other hand, would tend to occur locally; thus, projects occurring in the same general area and in the same time period would tend to create cumulative air quality impacts.

Existing Cumulative Conditions

Air quality management in the geographic area for the cumulative impact assessment is the responsibility of SDAPCD. Existing levels of development in San Diego County have led to the nonattainment status for ozone with respect to the CAAQS and NAAQS, and for PM_{10} and $PM_{2.5}$ with respect to the CAAQS. The nonattainment status is based on ambient air quality monitoring generally conducted in the urban portions of the County. No monitoring stations exist in the geographic area for the cumulative impact assessment, but air quality would generally be better than that in the urban areas in the western portion of the County due to the lack of major air pollutant sources. The air quality plans prepared by SDAPCD reflect future growth under local development plans but are intended to reduce emissions countywide to levels that would comply with the NAAQS and CAAQS through implementation of new regulations at the federal, state, and local levels.

Cumulative Analysis

Cumulatively Considerable Net Increase of Criteria Pollutants (Construction)

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SDAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. Additionally, for the basin, the RAQS serves as the long-term regional air quality planning document for the purpose of assessing cumulative operational emissions in the basin to ensure the SDAB continues to make progress toward NAAQS- and CAAQS-attainment status. As such, cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to air quality if, in combination, they would conflict with or obstruct implementation of the RAQS. Similarly, individual projects that are inconsistent with the regional planning documents upon which the RAQS is based would have the potential to result in cumulative operational impacts if they represent development and population increases beyond regional projections.

The SDAB has been designated as a federal nonattainment area for O3 and a state nonattainment area for O3, PM10, and PM2.5. PM10 and PM2.5 emissions associated with construction generally result in near-field impacts. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the basin. As discussed previously, NO_x and CO criteria air pollutant emissions from construction of the proposed project would be potentially significant. Exposure of sensitive receptors to TACs from construction diesel exhaust emissions would be considered a potentially significant impact of the proposed project; however, TACs are not criteria pollutants and potential impacts to sensitive receptors associated with TAC exposure would be specific to the sensitive receptors in direct proximity to the project site, including the residences adjacent to the project site boundary. No cumulative projects identified in Table 3-2, Cumulative Projects, are proximate enough to the proposed project to result in cumulative impacts to the same sensitive receptors with regard to TAC emissions. Finally, TAC emissions from construction would be short term in nature and would cease after construction of the proposed project. Therefore, cumulative impacts from criteria air pollutant emissions would be **potentially significant** during construction and **less than significant** during operation.

The proposed project's potential cumulative impacts to air quality are listed as follows:

Impact AQ-CU-1 The proposed project would result in a potentially significant cumulative impact from criteria air pollutant emissions during construction.

4.2.6 Mitigation Measures

The following mitigation measure is provided to reduce emissions of NO_x and CO during construction. This mitigation measure would also reduce the impacts to nearby sensitive receptors.

MM-AQ-1 During project construction, the City of Poway shall ensure that the project contractor adheres to the following measures to reduce diesel particulate emissions, including, but not limited to:

1) All construction equipment greater than 75 horsepower shall be equipped with Tier 4 Interim diesel engines or better.
2) The engine size of construction equipment shall be the minimum size suitable for the required job.
3) The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time.
4) Construction equipment shall be maintained in tune per the manufacturer's specifications.
5) The prime contractor will provide the City of Poway verification of equipment type used during construction.

4.2.7 Level of Significance After Mitigation

Table 4.2-7 shows the estimated maximum daily construction emissions associated with construction of the proposed project with implementation of MM-AQ-1. Complete details of the emissions calculations are provided in Appendix B.

Table 4.2-7. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Mitigated

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
2021	3.26	170.67	493.77	12.18	30.62	7.57
2022	7.43	67.34	76.81	0.27	77.01	10.07
2023	5.76	47.64	55.27	0.24	74.63	9.70
2024	72.22	48.12	56.08	0.24	76.93	9.99
Maximum	**72.22**	**170.67**	**493.77**	**12.18**	**77.01**	**10.07**
SDAPCD Threshold	*75*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District; CalEEMod = California Emissions Estimator Model.
See Appendix B for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. Although not considered mitigation, these emissions reflect the CalEEMod "mitigated" output, which accounts for the required compliance with SDAPCD Rule 55 (Fugitive Dust) and Rule 67.0.1 (Architectural Coatings).

As shown in Table 4.2-7, daily construction emissions would not exceed the significance thresholds for any criteria pollutant with incorporation of MM-AQ-1. Therefore, mitigation would be required to result in **less-than-significant** impacts during construction. Furthermore, cumulative impacts would be **less than significant** as well with mitigation.

Construction of proposed project components would require use of heavy-duty construction equipment, which is subject to a CARB ATCM for in-use diesel construction equipment to reduce diesel particulate emissions, and would involve use of diesel trucks, which are also subject to an ATCM. The implementation of **MM-AQ-1** would reduce the emissions of DPM during construction. The results of the HRA during construction with mitigation are provided in Table 4.2-8.

Table 4.2-8. Construction Activity Health Risk Assessment Results – Mitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Cancer Risk	Per Million	2.2	10.0	Less than Significant
HIC	Not Applicable	0.001	1.0	Less than Significant

Source: Appendix B.
Notes: CEQA = California Environmental Quality Act; HIC = Chronic Hazard Index.

The results of the construction analysis demonstrate that the mitigated construction emissions exhibit cancer risk below the 10 in 1 million threshold and below the Chronic Hazard Index threshold. The project construction TACs impact from DPM emissions would be reduced to **less than significant** with mitigation.

4.3 Biological Resources

This section describes the existing biological resources conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The analysis is based on the review of existing biological resources; technical data; applicable laws, regulations, and guidelines; and the biological technical report prepared by RECON Environmental in February 2020. The Biological Resources Report for The Farm in Poway Project is included in this Environmental Impact Report (EIR) as Appendix C.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to Biological Resources focused on the following topics:

- Presence of sensitive species and habitat
- Requests for biological survey and monitoring

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.3.1 Existing Conditions

Project Site

A majority of the vegetation on the project site is comprised of non-native ornamental plantings that line the former golf course fairways and access roads. While the grasses that make up the golf course fairways and greens were the most common vegetation while the course was active, the majority of the vegetation is now comprised of non-native weed species. No sensitive plants occur on the project site. No sensitive wildlife species were detected during the general survey (Appendix C). The project site is not directly adjacent to natural open space areas that support sensitive wildlife species.

Four soil types—Fallbrook sandy loam, Placentia sandy loam, Vista rocky course sandy loam, and Cieneba coarse sandy loam—as mapped by the U.S. Department of Agriculture (USDA 1973), occur within the survey area. The Fallbrook series consists of well-drained, moderately deep to deep sandy loams that formed in material that was weathered in place from granodiorite (USDA 1973). These soils are found in upland areas. The Placentia series consists of moderately well-drained sandy loams that have sandy clay subsoil (USDA 1973). These soils are formed in granitic alluvium. Vista series consists of well-drained to moderately well-drained sandy loams derived from granodiorite or quartz diorite. The Cieneba series consist of excessively drained, very shallow to shallow coarse sandy loams that formed in material weathered in place from granitic rock (Appendix C). Two sensitive vegetation communities, freshwater marsh and open water, were identified within the survey area (Appendix C). In addition, the freshwater marsh and open water are jurisdictional waters of the United States and the State of California. No sensitive plant or wildlife species were found within the proposed project site and the project site is not located within dedicated Mitigation Areas as indicated in the Poway Subarea Habitat Conservation Plan/Natural Community Conservation Plan (Poway Subarea HCP/NCCP) (City of Poway 1996).

Methodology

A biological survey was conducted by RECON biologists on February 7, 2019. The survey was conducted under clear skies between 9:30 a.m. and 11:45 a.m., with the air temperature ranging from 52°F to 59°F, and wind speed ranging from 0 to 2 miles per hour. Vegetation communities and land cover types were mapped on a 1-inch-equals-150 feet aerial photograph of the survey area. Wildlife species were observed directly or detected from calls, tracks, scat, nests, or other signs. Plant species observed within the survey area were also noted (Appendix C).

Floral nomenclature for common plants follows the Jepson Online Herbarium (Jepson Flora Project 2019), for ornamental plants Brenzel (2001), and for sensitive plants California Rare Plant Rank (CNPS 2019). Vegetation community classifications follow Oberbauer et al. (2008), which is based on Holland's (1986) Preliminary Descriptions of the Terrestrial Natural Communities of California. Zoological nomenclature for birds is in accordance with the American Ornithological Society Checklist (Chesser et al. 2018) and Unitt (2004); for mammals with Baker et al. (2003); and for reptiles with Crother (2008). Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (CNPS 2019; Jennings and Hayes 1994; Reiser 2001; Unitt 2004) and species occurrence records from the California Natural Diversity Database (CDFW 2018a) (Appendix C).

Botany

Three vegetation/land cover types were identified on the proposed project site, (1) freshwater marsh, (2) open water, and (3) developed/disturbed land (see Table 4.3-1). Freshwater marsh and open water are considered sensitive habitats, while developed/disturbed land is not considered sensitive habitat. Figure 4.3-1, Vegetation Communities and Land Cover Types, shows all of the vegetation communities found within project site. The full list of plants found on the project site are listed in Appendix C. No sensitive plant species were found on the project site.

Table 4.3-1. Existing Vegetation Communities and Land Cover Types

Vegetation Communities/ Land Cover Types[1]	Sensitivity Type[2]	Acreage
Freshwater Marsh	Sensitive	0.02
Open Water	Sensitive	0.14
Developed/Disturbed Land	Not Sensitive	117.04
	Total	**117.2**

Source: Appendix C.
Notes:
1 Per Table 5-2 of the Poway Subarea HCP/NCCP.
2 Per the Poway Subarea HCP/NCCP.

Freshwater Marsh

Freshwater marsh communities comprise perennial emergent monocots typically forming a closed canopy. This habitat occurs in open bodies of fresh water with little current flow, such as ponds, and to a lesser extent around seeps and springs. Freshwater marshes occur in areas of permanent inundation by freshwater without active stream flow (Oberbauer et al. 2008). Freshwater marsh is sensitive per the Poway Subarea HCP/NCCP and regulated by the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) (Appendix C).

A small patch of freshwater marsh vegetation occurs around the banks of the pond located in the southwest portion of the proposed project site. Broadleaf cattail (*Typha latifolia*) is the most common plant species along with a couple of mulefat shrubs (*Baccharis salicifolia*) and individuals of Washington fan palm (*Washingtonia robusta*) and eucalyptus trees (*Eucalyptus* spp.). There are three other former ponds on the proposed project site, but these no longer hold water and do not support vegetation (Appendix C). Photographs of the site can be found in Appendix C.

Open Water

One freshwater pond is located in the southwest portion of the project site, downstream of the freshwater marsh area. This pond continues to hold water seasonally, but does not support a predominance of wetland vegetation, and is therefore categorized as open water (Appendix C). Photographs of the site can be found in Appendix C.

Developed/Disturbed Land

Developed/disturbed land consist of all buildings, parking lots, access roads, and former golf course fairways and greens. The majority of the vegetation on the project site is comprised of non-native ornamental plantings that line the former golf course fairways and access roads. The grasses that make up the golf course fairways and greens were the most common vegetation while the course was active; however, the majority of the vegetation is now comprised of non-native weed species. Various trees remain on the property, including species of eucalyptus and pine (*Pinus* spp.) along with specimen of Washington fan palm, date palm (*Phoenix dactylifera*), Peruvian peppertree (*Schinus molle*), and Brazilian peppertree (*Schinus terebinthifolius*) (Appendix C). Photographs of the site can be found in Appendix C.

Zoology

No sensitive wildlife species were observed on the project site. Common wildlife species detected during the survey include mule deer (*Odocoileus hemionus*), Anna's hummingbird (*Calypte anna*), song sparrow (*Melospiza melodia*), and black phoebe (*Sayornis nigricans*). A full list of all wildlife species observed is listed in Appendix C.

Sensitive Biological Resources

Sensitive Vegetation Communities

Two sensitive vegetation communities, freshwater marsh and open water, occur within the survey area. These habitats are sensitive habitats under the Poway Subarea HCP/NCCP and are federal and state jurisdictional waters under the jurisdiction of the ACOE, CDFW, and RWQCB. The location of these sensitive vegetation communities on the site are shown on Figure 4.3-1.

Sensitive Plants

No sensitive plants were found on the project site and none are expected to occur. An evaluation of sensitive plant species known to occur within one mile of the project site, based on a review of the California Natural Diversity Data Base, and their potential for their occurrence on the site can be found in Appendix C.

Sensitive Wildlife Species

No sensitive wildlife species were found on the project site. Although not observed, Cooper's hawk (*Accipiter cooperii*) has moderate potential to nest within the mature trees on site. An evaluation of sensitive wildlife species known to occur within one mile of the project site that are federally listed threatened or endangered, or have the potential to occur based on species range, can be found in Appendix C.

While Coastal California gnatcatcher *(Polioptila californica californica)* is known to occur in open space areas to the east and north of the project site, these open space areas are separated from the project site by development and the project site is not directly adjacent to habitat for this species. No coastal sage scrub habitat occurs on the project site and no coastal California gnatcatchers were observed on the site (Appendix C).

Wildlife Movement Corridor

Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife movement corridors are important, because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife movement corridors are considered sensitive by resources and conservation agencies (Appendix C).

The survey area does not currently function as a significant wildlife movement corridor. It is surrounded by residential development and is fenced around the perimeter, which ultimately restricts its use by wildlife. While there may be some wildlife movement within the open areas and trees within the site, the property, as a whole, does not provide a major movement corridor for wildlife species to other adjacent native habitat area (Appendix C).

Jurisdictional Waters

A formal jurisdictional waters delineation was not conducted as part of this study. The jurisdictional status of features on the proposed project site were preliminarily assessed based on connectivity to a natural watercourse and presence of hydrophytic vegetation.

The concrete-lined drainage located in the southwest corner of the project site conveys stormwater runoff from the golf course and adjacent development through the freshwater marsh and associated pond, and then to a large culvert under Espola Road (see Figure 4.3-1). Photographs of this concrete culvert can be found in Appendix C. Historically, this portion of the project site supported a "blue-line" stream course, as shown on Figure 4.3-2, Project Location on USGS Map. The development and subsequent contouring of the property into the golf course re-directed this "blue-line" stream course into the alignment of the concrete lined drainage. The flows from this drainage are conveyed off site to the south where they connect to a natural watercourse. This lined drainage and associated ponds would likely be considered a water of the United States and water of the state due to the presence of hydrophytic vegetation and connectivity to a natural watercourse located off site. The total jurisdictional area equals 0.23 acres (0.02 acres of freshwater marsh, 0.14 acres of open water, and 0.07 acres of concrete-lined channel).

There are a number of other concrete-lined drainage features spread out over the former golf course, usually in low-lying areas where localized stormwater runoff collect. All but one of these lined drainages appear to convey water to areas on site (e.g., to brow ditches, and/or to storm drain connections to the adjacent developed areas). These lined drainages do not support hydrophytic vegetation, and do not connect to a natural drainage system off site.

Three abandoned, un-vegetated golf course ponds occur to the west of the clubhouse complex in the center of the property. These ponds are isolated features that were used to store irrigation water for the golf course. The smaller pond is concrete lined. These three ponds are not likely jurisdictional waters of the United States or waters of the state as they were excavated in an upland area, do not support hydrophytic vegetation, and do not connect to any natural drainage course (Appendix C).

Photographs of the concrete-lined drainages, channels, and culverts can be found in Appendix C.

4.3.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Endangered Species Act

The federal Endangered Species Act of 1973 (ESA), as amended (16 USC 1531 et seq.), provides for listing of endangered and threatened species of plants and animals and designation of critical habitat for listed animal species. The ESA also prohibits all persons subject to United States jurisdiction from "taking" endangered species, which includes any harm or harassment. Section 7 of the ESA requires that federal agencies, prior to project approval, consult the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service to ensure adequate protection of listed species that may be affected by the project.

Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act of 2004 (Senate Bill 2547). The MBTA is generally protective of migratory birds, but does not actually stipulate the type of protection required. In common practice, MBTA is used to place restrictions on disturbance of active bird nests during the nesting season (generally February 1 through August 31). In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

Clean Water Act

The federal Water Pollution Control Act Amendments of 1972 (Clean Water Act) (33 USC 1251 et seq.), as amended by the Water Quality Act of 1987 (PL 1000-4), is the major federal legislation governing water quality. The purpose of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Discharges into waters of the United States are regulated under Section 404. Waters of the United States include (1) all navigable waters (including all waters subject to the ebb and flow of tides); (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; (4) all impoundments of waters mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above. In California, the State Water Resources Control Board and the nine RWQCBs are responsible for implementing the Clean Water Act. Important applicable section of the Clean Water Act include the following:

- **Section 303** requires states to develop water quality standards for inland surface and ocean waters and submit to the U.S. Environmental Protection Agency for approval. Under Section 303(d), the state is required to list waters that do not meet water quality standards and to develop action plans, called total maximum daily loads, to improve water quality.
- **Section 304** provides for water quality standards, criteria, and guidelines.

- **Section 401** requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply other provisions of the Clean Water Act. Certification is provided by the respective RWQCB.
- **Section 402** establishes the National Pollutant Discharge Elimination System, a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the United States. The National Pollutant Discharge Elimination System program is administered by the RWQCB. Conformance with Section 402 is typically addressed in conjunction with water quality certification under Section 401.
- **Section 404** provides for issuance of dredge/fill permits by the ACOE. Permits typically include conditions to minimize impacts on water quality. Common conditions include (1) ACOE review and approval of sediment quality analysis before dredging, (2) a detailed pre- and post-construction monitoring plan that includes disposal site monitoring, and (3) required compensation for loss of waters of the United States.

State

California Endangered Species Act

Similar to the federal ESA, the California ESA of 1970 provides protection to species considered threatened or endangered by the State of California (California Fish and Game Code, Section 2050 et seq.). The California ESA recognizes the importance of threatened and endangered fish, wildlife, and plant species and their habitats; it also prohibits the taking of any endangered, threatened, or rare plant and/or animal species unless specifically permitted for education or management purposes.

California Fish and Game Code

The California Fish and Game Code regulates the handling and management of the state's fish and wildlife. Most of the code is administered or enforced by the CDFW. One section of the code generally applies to public infrastructure projects such as the proposed project:

- Section 1602 regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Native Plant Society

The California Native Plant Society maintains a list of special-status plant species based on collected scientific information. Designation of these species by the California Native Plant Society does not constitute legal status or protection under federal or state endangered species legislation. The California Native Plant Society's California

Rare Plant Ranks (CRPRs) are defined as follows: CRPR 1A (plants presumed extinct), CRPR 1B (plants rare, threatened, or endangered in California and elsewhere), CRPR 2 (plants rare, threatened, or endangered in California, but more numerous elsewhere), CRPR 3 (plants about which more information is needed—a review list), and CRPR 4 (plants of limited distribution—a watch list). In general, substantial adverse effects to plants designated as CRPR 1A, 1B, or 2 would be considered significant.

California Natural Community Conservation Planning Act of 1991

The Natural Community Conservation Planning Act of 1991 provides a framework for state and local government, as well as private interest efforts, for the protection of regional biodiversity and the ecosystems upon which they depend. Natural community conservation plans allow for the appropriate, compatible economic activity to occur while ensuring the long-term conservation of multiple species.

California Fish and Game Code

The California Fish and Game Code provides specific protection and listing for several types of biological resources. Section 1600 et seq. of the California Fish and Game Code require notification and, if required, a Streambed Alteration Agreement for any activity that would alter the flow, change, or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require notification include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement.

Pursuant to California Fish and Game 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 California Fish and Game 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 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 would not be disturbed, subject to approval by CDFW and/or USFWS.

Local

Poway Municipal Code – Chapter 12.32 – Urban Forestry, Article 3 – Removal of Trees on Private Property

Chapter 12.32 of the City of Poway Municipal Code (City of Poway 2000) sets all tree-related policies, standards, and regulations. Removal of trees on private property, such as the proposed project site, requires the property owner to acquire a permit from the Director of Development Services that authorizes the removal of a native tree or a heritage tree.

Chapter 12.32.150 – Private Tree Removal Permit

A. The Director of Development Services shall maintain the City of Poway's private tree removal permit records and issue such permits.
B. A property owner shall first obtain a private tree removal permit authorizing the removal of a private tree that is a native tree or a heritage tree subject to terms and conditions deemed appropriate by the Director

of Development Services or his/her designee. On commercial and industrial property, a permit shall be required for the removal of any living tree greater than three inches in diameter.

C. Applicants shall be expected to replace these types of trees in accordance with PMC [Poway Municipal Code] 12.32.170: "Replacement of Trees." The Director of Development Services, or his/her designee shall review each private tree removal permit application and make a recommendation as to whether the permit shall be issued or denied. The decision to issue or deny the permit and any terms and conditions of the permit shall be based on the following criteria:

1. The condition of the tree with respect to disease, general health, damage, public nuisance, danger of falling, proximity to existing or proposed structures and interference with utility services, age or remaining life span, and whether or not the tree acts as a host for a plant which is parasitic to other species of trees which are in danger of being infested or exterminated by the parasite;
2. The necessity of the requested action to construct improvements, or allow economic or other enjoyment of the property;
3. The topography of the land and the effect of the requested action on erosion, soil retention, water retention, and diversion or increased flow or surface water;
4. The number, species, size, and location of existing trees in the area and the effect of the requested action in terms of providing shade, protection from wind, air pollution reduction, historic or cultural value, and scenic beauty upon the health, safety, aesthetics, and general welfare of the City as a whole;
5. Generally accepted International Society of Arboriculture practices addressing topics such as, but not limited to, the number of healthy trees a given parcel of land will support;
6. Native trees shall be retained unless their removal is absolutely necessary. (Ordinance 521, Section 1[B], 2000)

Chapter 12.32.170 – Replacement of Trees

Any person removing a live tree pursuant to a permit issued by the Director of Development Services or his/her designee shall replace such tree on a one-for-one basis with a tree of the same size of a species and in a location approved by the Director of Development Services or his/her designee. Where the tree to be removed exceeds the size of a 72-inch-box specimen (approximately eight inches in diameter), two 48-inch box specimen trees shall be used as replacements. These requirements may be waived or modified by the Director of Development Services if it is determined that the requirements impose an unreasonable hardship. (Ordinance 521, Section 1[B], 2000)

Chapter 12.32.180 – Commercial, Industrial, and Residential Development Projects

For commercial, industrial, or residential projects requiring City approval, existing on-site trees shall be retained wherever possible and shall be trimmed and maintained in accordance with the adopted "City of Poway Guidelines to Landscape Requirements." A master plan of the existing on-site trees shall be provided to the Development Services Department prior to the issuance of building and grading permits, to determine which trees shall be retained. Any dead, decaying, or potentially dangerous trees shall be approved for removal at the discretion of the Director of Development Services during review of the master plan of existing on-site trees. All trees that are removed shall be replaced on a one-for-one basis as described in PMC [Poway Municipal Code] 12.32.170, and replacements should be one of the species contained in the adopted "City of Poway Guidelines to Landscape Requirements." (Ordinance 521, Section 1[B], 2000)

Poway Comprehensive Plan: General Plan – Resources Element

The Poway Comprehensive Plan: General Plan (General Plan) includes the following policies regarding biological resources (City of Poway 1991):

Goal IV: It is the goal of the city of Poway to preserve its natural, scenic and cultural resources for the future benefit and enjoyment of its residents and to protect biological and ecological diversity.

- **Strategy 1:** Significant open space areas and scenic vistas along local scenic roadways should be protected.
- **Strategy 2:** The mountains, hillsides and prominent ridgelines are a valuable natural resource and should be preserved through appropriate land use policies.

Policy C – Biological Resources: Wildlife and natural plants are a valuable natural resource and should be preserved and protected.

- **Strategy 1:** The acquisition and dedication of undeveloped land adjacent to and between existing dedicated open space areas is encouraged to promote large contiguous areas necessary for watershed, habitat and viewshed protection. If private development is required to purchase and dedicate land to mitigate environmental impacts, the acquisition of areas adjacent to existing large permanent open space areas is preferred.
- **Strategy 2:** Biological corridors shall be preserved in order to provide linkages for vegetative and wildlife communities between nonconnective open space areas. Special efforts shall be made to acquire and preserve the two major wildlife corridors identified in the Detailed Biological Assessment and lands linking open space areas in Poway to open space areas in the region, such as the Sycamore Canyon County Park and San Dieguito Regional Park.
- **Strategy 3:** Development should not disrupt habitats considered to be sensitive, or the habitat of sensitive, declining, threatened, rare or endangered species. An assessment, performed by a qualified biologist, shall be required in areas where the existence of a sensitive species is known or reasonably expected to be present.
- **Strategy 4:** Off-road vehicle use is prohibited.
- **Strategy 5:** Access of humans and domestic animals to preserved biological habitats and sensitive biological areas shall be limited as deemed necessary to preserve the integrity of the areas.
- **Strategy 6:** Confinement of horses, cattle and other livestock shall not be permitted in natural open space areas or sensitive biological areas.
- **Strategy 7:** Mitigation for significant impacts for biological resources in the form of preservation (on site and off site) or restoration shall be required. All preservation and restoration areas shall be dedicated as permanent biological open space.
- **Strategy 8:** The City and development community should use the important biological resource areas, as identified in the Detailed Biological Assessment, as the foundation for a City-wide system of reserves and wildlife corridors. Efforts should be made to acquire unprotected lands within and adjacent to these areas, through mitigation banking programs or other land transfer and acquisition programs for the purposes of biological resource preservation and natural open space management.
- **Strategy 9:** Require biological monitoring during construction where there is the potential to impact sensitive biological resources. Construction monitoring shall be conducted by a qualified biologist and follow the guidelines outlined in the Detailed Biological Assessment to ensure that all construction practices consider the protection of sensitive biological resources both on and off site.

- **Strategy 10:** Long-term biological management plans for open space areas within a proposed development should be developed by a qualified biologist and implemented by the developer.
- **Strategy 11:** Habitat conservation plans should be developed for endangered resources.
- **Strategy 12:** The hunting of wildlife shall be prohibited in Poway.
- **Strategy 13:** Development proposals shall consider areas determined to be particularly valuable to wildlife as identified for each quadrant of the City in the Detailed Biological Assessment. Efforts shall be made to minimize encroachment into these areas.
- **Strategy 14:** Plant resources, particularly large expanses of undisturbed natural areas, oak woodlands, riparian corridors, significant tree stands and sensitive declining, threatened and endangered species should be preserved through appropriate means such as buffering and dedicated open space.
- **Strategy 15:** Large tree stands comprised of oaks, sycamores or eucalyptus should be retained and integrated into project designs. The understory in these stands should also be retained or enhanced with native species as deemed appropriate by a qualified biologist or native plant horticulturalist. Areas preserved shall be designated as permanent natural open space.

The biological resources report can be found in Appendix C.

Poway Subarea Habitat Conservation Plan/Natural Community Conservation Plan

The Poway Subarea HCP/NCCP (City of Poway 1996) lists general development requirements that apply to all parcels of land in the City that may contain native or natural vegetation and wildlife. Section 7.3.2, Specific Development Requirements, in the Poway Subarea HCP/NCCP is not applicable to the proposed project because the project site is not located within the Mitigation Area. The following are applicable requirements that haven't already been discussed in this section.

7.3.1 General Development Requirements

8. The potential adverse effects of development and associated human activity (for example, noise, light, and encroachment by people or domestic animals) on adjacent open space, natural habitat, biological core areas, habitat linkages, and wildlife movement corridors shall be limited as deemed necessary to preserve the integrity of these areas. In some cases, a buffer of protected natural habitat surrounding the development area may be required (Poway Municipal Code, General Plan, and CEQA Implementation Procedures).

23. Important and sensitive biological resources, significant archaeological resources, and historical sites shall be protected and integrated into the design of a development project where feasible (Poway General Plan).

28. Monitoring by a qualified biologist during vegetation clearing, grading, construction, and land development activities shall be required where there is the potential to impact sensitive biological resources both on and off site (Poway General Plan).

7.4 Compensation Mitigation

Impacts to vegetation communities and wildlife habitats in the City of Poway, either inside or outside of the Mitigation Area, shall require compensating mitigation, restoration, or revegetation, or a combination thereof, inside the Mitigation Area. Compensating mitigation can consist either of 1) outright purchase or dedication of lands inside the Mitigation Area as biological open space or 2) payment of in-lieu fees into a mitigation bank administered by the City of Poway or a land trust acting as an agent of the City of Poway. Mitigation lands should be selected according to the priority ratings for the Proposed Resource Protection Areas (PRPAs) outlined in Section 5.5.

The compensation strategy applies to planned public and private development projects within the City or within other jurisdictions that choose to mitigate within Poway. It includes provisions for "in-kind/out-of-kind" and "on-site/off-site" compensation mitigation. The specific mitigation strategy for a development project will be based on the result of a biological resource survey technical report prepared by a qualified biologist.

7.4.1 Compensation for Impacts Outside Mitigation Area

Biological impacts for projects outside of the Mitigation Area will be mitigated primarily by in-kind habitat acquisition within the Mitigation Area. In the event that there is insufficient inventory, of in-kind habitat available for acquisition within the Mitigation Area, or if out-of-kind habitat is available that better serves overall preserve design, mitigation will be satisfied by purchase of a sufficient combination of in- and out-of-kind habitat. In all cases, mitigation purchases must be within the Mitigation Area unless biological information indicates that habitat available for acquisition outside of the Mitigation Area would add greater value to the preserve than would acquisitions within the Mitigation Area. A reduction in the mitigation requirement of up to ten (10) percent will be granted for compensation acreage acquired within high priority PRPAs ("PRPA Bonus"). If insufficient acreage is available within high priority PRPAs, the 10 percent bonus may be applied to other selected parcels at the discretion of the City.

Optionally, mitigation compensation may be satisfied by the payment of a fee pursuant to the City's Mitigation Compensation In-lieu Fee Schedule and Process (Section 7.6). Such fees will be deposited in the City's Mitigation Area Acquisition Fund for purchase of preserve land within the Mitigation Area.

7.4.3 Compensation Mitigation Ratios

The following mitigation ratios shall apply to all projects resulting in removal of natural vegetation or wildlife habitat within the City of Poway and that are subject to the HCP, whether inside or outside of the Mitigation Area.

Wetlands

Given the "no net loss" policy for wetland habitats of the City and the resources agencies (ACOE, USFWS, CDFW) impacts to all wetland habitats shall be avoided or minimalized where alternatives exist. Any unavoidable impacts to wetlands may require a permit from the ACOE under Section 404 of the Clean Water Act and will require a Streambed Alteration Agreement with the CDFW. Unavoidable impacts to wetlands will be mitigated by replacement or enhancement of a minimum of 3:1 for woodland types and 2:1 for shrub-dominated types. Mitigation for disturbed wetlands will generally be mitigated in-kind at no less than 1:1 ratio as determined by a case-by-case basis.

Oak Woodlands

Impacts to oak-dominated habitats shall require mitigation by in-kind habitat creation, restoration or enhancement as determined by the City and the project biologist. Impacts shall require a minimum of a 3:1 replacement ratio, depending on the quality and maturity of the habitat as determined by the project biologist.

To achieve 2:1 replacement of individual oak trees outside of woodland habitats in the long term, impacts to individual oak specimens shall be replaced (linear stock) as follows:

- 10 oaks shall be planted for each oak directly impacted; and
- Five oaks shall be planted for each oak indirectly impacted.

The oaks should be planted in appropriate habitat to create a comparable area of woodland value within the Mitigation Area to that removed by the action.

4.3.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to biological resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to biological resources would occur if the proposed project would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
3. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, interruption, or other means.
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.3.4 Impacts Analysis

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

As stated in Section 4.3.1, Existing Conditions, a majority of the vegetation on the site is comprised of non-native ornamental plantings that line the former golf course fairways and access roads. While the grasses that make up the golf course fairways and greens were the most common vegetation while the course was active, the majority of the vegetation is now comprised of non-native weed species. No sensitive plants occur on the project site or in the surrounding areas where off-site improvements are proposed, therefore the proposed project would have no impact on sensitive plant species. No sensitive wildlife species were detected during the general survey (Appendix C).

The proposed project may result in direct impacts to small mammals and reptiles. Large mammal species and most birds would be able to avoid impacts due to grading. Therefore, impacts to general wildlife are considered less than significant and would not require mitigation.

The proposed project has potential to result in direct impacts to migratory or nesting birds, including Cooper's hawk, and other raptors within the survey area if vegetation removal occurs during the typical bird breeding season (February 1 to September 15). There would be a potentially significant impact (Impact BR-1) on migratory or nesting birds, which would require mitigation measures (MM-BR-1).

The project site is not directly adjacent to natural open space areas that support sensitive wildlife species. Therefore, potential significant indirect impacts to sensitive wildlife species from lighting, noise, and human activity is not anticipated, both during and after project construction. Indirect impacts to any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS are considered **less than significant** and would not require mitigation.

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

The large majority of the site is considered developed/disturbed habitat. However, on the southwestern end of the project site, two sensitive natural communities were identified: 0.02 acres of freshwater marsh and 0.14 acres of open water. Freshwater marshes are considered sensitive in accordance with the Poway Subarea HCP/NCCP (City of Poway 1996), the ACOE, CDFW, and RWQCB (Appendix C). Open waters are considered sensitive in accordance with the Poway Subarea HCP/NCCP (City of Poway 1996).

The proposed project would develop approximately 117.2 acres of the decommissioned StoneRidge Country Club and associated 18-hole golf course into 160 residential buildings, non-residential buildings for recreational use, tot lots, gardens, water quality basins, multi-use trails, and private streets. As shown on Figure 1-1, Site plan, the freshwater marsh and the open water habitat spaces would be filled in order to build Private Street B, residential homes, open spaces, multi-use trails, and water quality basins. Therefore, the project would have a **potentially significant impact (Impact BR-2)** and would require mitigation measures **(MM-BR-2)**.

Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

A concrete-lined drainage collects stormwater runoff from the golf course and adjacent developments through the freshwater marsh and open water freshwater pond; refer above to discussion regarding potential impacts to those two sensitive natural communities. The drainage supports hydrophytic vegetation and flows south into a natural watercourse, and as a result the concrete-lined drainage and associated water bodies (freshwater marsh and open water freshwater pond) are considered jurisdictional waters of the United States and the state. The total jurisdictional area equals 0.23 acres (0.02 acres freshwater marsh, 0.14 acres open water, and 0.07 acres of concrete-lined channel) (Appendix C).

Additional concrete-lined drainages were found on the project site, but they were not found to flow into a natural watercourse nor did they predominantly support hydrophytic vegetation. Therefore, they are not considered jurisdictional waters of the United States and the state. Three abandoned, un-vegetated, concrete-lined golf course ponds were found within the project site, but are not considered jurisdictional waters because they do not connect to a natural drainage source and do they support hydrophytic vegetation.

The project's potential impacts to the southerly concrete-lined drainage, freshwater marsh and open water habitat (a total of 0.23 acres) found on the project site results in the impact to jurisdictional waters of the United States and waters of the state. The proposed project would have a **potentially significant impact (Impact BR-3)** and would require mitigation measures **(MM-BR-2)**.

Would the 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, or impede the use of native wildlife nursery sites?

The project site is home to many mature trees that can be used as perching spots for migratory birds, including raptors. Although there were no sensitive species surveyed on site, the habitat could potentially support migratory or nesting birds, including species of special concern Cooper's hawk. Therefore, the proposed project would have a **potentially significant impact** on the movement of migratory wildlife species, such as migratory nesting birds **(see Impact BR-1),** and would require mitigation measures **(MM-BR-1)**.

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

As listed in Appendix C, Attachment 1, various trees were observed on the project site, such as species of eucalyptus and pine (*Pinus* spp.) along with specimens of Mexican fan palm, date palm (*Phoenix dactylifera*), Peruvian pepper tree (*Schinus molle*), Brazilian pepper tree (*Schinus terebinthifolius*) as well as coast live oak (*Quercus agrifolia*) (Appendix C). Furthermore, as stated in the City of Poway Municipal Code, Chapter 12.32, all existing on-site trees shall be retained wherever possible and shall be trimmed and maintained in accordance with the City of Poway Guidelines to Landscape Requirements (City of Poway 2000). However, permits to remove trees are issued based on criteria in Chapter 12, Urban Forestry, of the City of Poway Municipal Code. One of the criteria considered for approval of a permit to remove trees includes "the condition of the tree with respect to disease, general health, damage, public nuisance, danger of falling, proximity to existing or proposed structures and interference with utility services, age or remaining life span, and whether or not the tree acts as a host for a plant which is parasitic to other species of trees which are in danger of being infested or exterminated by the parasite" (City of Poway 2000). Development of the project site would result in removal of trees. Based on Figure 1-1, it is assumed that at least three coast live oaks and potentially other trees such as, but not limited to, eucalyptus, would be removed due to placement of development such as parking lots or structures. According to the Farm in Poway Specific Plan (The Farm in Poway LLC 2020), most of the existing trees on site are in poor health or represent a safety hazard.

Strategy 3 of the City's General Plan Resources Element states that development should not disrupt habitats considered to be sensitive (City of Poway 1991). Two sensitive habitats were found on site: freshwater marsh and open water. The proposed project would develop approximately 117.2 acres of the decommissioned StoneRidge Country Club and associated 18-hole golf course into 160 residential buildings, non-residential buildings for recreational use, tot lots, gardens, water quality basins, multi-use trails, and private streets. As shown on Figure 1-1, the freshwater marsh and the open water habitat spaces would be filled in order to build Private Street B, residential homes, open spaces, multi-use trails, and water quality basins.

Therefore, due to the removal of trees and impacts to two sensitive habitats, the proposed project would result in potentially significant impacts related to potential conflicts with local policies or ordinances protecting biological resources **(Impact BR-4)** and would require mitigation measures **(MM-BR-2, MM-BR-3)**.

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is located within the Poway Subarea HCP/NCCP. The Poway Subarea HCP/NCCP was adopted in 1996, and serves as the project document for the protection and management of biologically effective,

interconnected spaces in the City. A preserve system within the City has been designated as the Poway Mitigation Area as part of the Poway Subarea HCP/NCCP (City of Poway 1996).

The project site is not located within the Poway Mitigation Area (see Figure 4.3-3, Project Location in Relation to City of Poway HCP Mitigation Area). This is due to the highly developed setting of the property and its isolation from adjacent undeveloped habitat areas by residential development. Therefore, implementation of the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and impacts would be **less than significant**.

The proposed project's impacts to biological resources are listed as follows:

Impact BR-1 The proposed project would result in significant impacts to nesting birds if suitable nesting habitats, such as mature trees, are removed during the general bird breeding season from February 1 to September 15.

Impact BR-2 The proposed project would impact 0.16 acres of wetland/riparian and other sensitive natural communities.

Impact BR-3 The proposed project would impact 0.23 acres of jurisdictional waters and wetlands.

Impact BR-4 The proposed project would result in the unavoidable impact of trees and sensitive habitats on the project site, therefore being in conflict with local regulations.

4.3.5 Cumulative Impacts

A cumulative study area for biological resources was identified based on the local environment setting and areas that share similar biological resources as those determined to occur on the proposed project site. The geographic scope of cumulative impacts are limited to other projects within the City (see Table 3-2, Cumulative Projects).

4.3.5.1 Special-Status Plant and Wildlife Species

The proposed project site is heavily disturbed due to its prior use as a golf course and recreational site. No special-status plants or wildlife were observed on site. Although no special-status wildlife were recorded on site, it is possible that special-status wildlife, such as Cooper's hawk, could occur and nest on site because of the presence of mature trees. Avoidance of nesting birds is a regulatory requirement for any project occurring within the cumulative study area. Nesting birds are protected under federal and state policy, including the MBTA and California Fish and Game Code, respectively. Without the appropriate mitigation, in combination with other cumulative projects, the proposed project would potentially contribute to a **cumulatively considerable impact** to nesting birds **(Impact BR-CU-1);** see **MM-BR-1**.

4.3.5.2 Riparian Habitat or Other Sensitive Natural Communities

As discussed in Section 4.3.4, Impacts Analysis, 0.02 acres of freshwater marsh and 0.14 acres of open water would be impacted by the proposed project. Freshwater marshes are considered sensitive in accordance with the Poway Subarea HCP/NCCP (City of Poway 1996), the ACOE, CDFW, and RWQCB (Appendix C). Open waters are considered sensitive in accordance with the Poway Subarea HCP/NCCP (City of Poway 1996). Without appropriate mitigation, the proposed project in combination with cumulative projects **would potentially contribute to the cumulative impact** to riparian habitat or other sensitive natural communities **(Impact BR-CU-2)**; see **MM-BR-2.**

4.3.5.3 Jurisdictional Waters and Wetlands

As discussed in Section 4.3.4, Impacts Analysis, 0.23 acres of jurisdictional waters and wetlands would be impacted by the proposed project. In accordance with regulatory requirements, projects are required to notify the appropriate regulatory agencies and obtain the appropriate permits to demonstrate compliance with existing regulations protecting jurisdictional resources. The regulatory permitting process ensures that every project with unavoidable impacts on jurisdictional resources implements required avoidance, minimization, and compensatory mitigation measures and obtains the appropriate permits. Projects in the City of Poway are required to meet a no-net-loss standard for both function and spatial area of wetland and non-wetland resources. Without appropriate mitigation, the proposed project in combination with cumulative projects **would potentially contribute to the cumulative impact** to jurisdictional waters and wetlands **(Impact BR-CU-3)**; see **MM-BR-2**.

4.3.5.4 Conflict with Local Policies or Ordinances Protecting Biological Resources

As discussed in Section 4.3.4, trees on the project site would be impacted by the proposed project. Pursuant to regulatory requirements, projects in the City are required to compensate the loss of mature and protected trees. Without the appropriate mitigation, the proposed project in combination with other cumulative projects would potentially contribute to the **cumulative impact** to mature and protected trees **(Impact BR-CU-4)**; see **MM-BR-3**.

The proposed project's potential cumulative impacts to biological resources are listed as follows:

Impact BR-CU-1 The proposed project would potentially contribute to a cumulatively considerable impact to nesting birds.

Impact BR-CU-2 The proposed project would potentially contribute to a cumulatively considerable impact to wetland/riparian and other sensitive natural communities.

Impact BR-CU-3 The proposed project would potentially contribute to a cumulatively considerable impact to jurisdictional waters and wetlands.

Impact BR-CU-4 The proposed project would potentially contribute to a cumulatively considerable impact to mature and protected trees.

4.3.6 Mitigation Measures

The following mitigation measures would be implemented to reduce potentially significant impacts to less than significant.

MM-BR-1 Removal of habitat that supports active nests in the proposed project area of disturbance shall occur outside of the breeding season for nesting birds (February 1 to September 15). If removal of the habitat in the proposed area of disturbance must occur during the breeding season, a qualified biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds or raptors protected under the Migratory Bird Treaty Act and California Fish and Game Code. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to the City of Poway (City) for review and approval prior to initiating any construction activities.

1. If nesting birds are detected, a letter report or mitigation plan (pre-construction survey) in conformance with applicable state and federal law (e.g., appropriate follow-up surveys, monitoring schedules, construction, noise barriers, and/or buffers up to 300 feet) shall be

prepared and include proposed measures to be implemented to ensure that take of birds or eggs, or disturbance of breeding activities, is avoided. The report or mitigation plan shall be submitted to the City for review and approval. The recommendations contained in the mitigation plan shall be implemented to the satisfaction of the City.

2. If nesting birds are not detected during the pre-construction survey, no further mitigation is required.
3. If nesting birds are detected and construction activities are to occur during the breeding season the following mitigation measures shall be implemented:

    a) No vegetation clearing shall occur within 300 feet of an active raptor nest and 100 feet of an active nest of a non-listed bird species until a biologist has determined that the young have fledged from the nest or that the nest is inactive (i.e., abandoned).

    b) A mitigation plan outlining active nest avoidance measures in conformance with applicable state and federal law shall be prepared and submitted to the City of Poway for review and approval.

    c) During construction, active nests shall be monitored on a daily basis to determine the effectiveness of the avoidance measures being implemented. The biologist shall monitor all active nests until all young have fledged or until the nest is determined inactive.

    d) A minimum 300-foot buffer between the location of an active raptor nest and the nearest construction activity shall be maintained until the young have fledged from the nest or until the nest is determined inactive. For nests of non-raptor birds, a buffer of 100 feet shall be maintained.

4. While no specific noise level thresholds have been established for raptors or other non-listed bird species, construction activities that are expected to generate noise levels above the ambient noise level shall be measured by an acoustician technician. The active nest shall also be monitored by a biologist to determine if there is any effect on the breeding behavior of the particular species from the elevated noise levels. If it is determined that the elevated noise level is having an effect on the breeding behavior of the nesting bird species, then the noise generating construction activity shall be suspended in the vicinity of the active nest until such time as all of the young birds have fledged or until the nest is determined inactive.

MM-BR-2 Impacts to jurisdictional waters require a 404 permit from the U.S. Army Corps of Engineers, a 401 state water quality certification from the Regional Water Quality Control Board, and a 1602 streambed alteration agreement from the California Department of Fish and Wildlife. Impacts to the sensitive habitat, including jurisdictional waters, within the project site require compensating mitigation, restoration, or revegetation, or a combination thereof, inside a priority Mitigation Area as defined by the Poway Subarea Habitat Conservation Plan/Natural Community Conservation Plan (Poway Subarea HCP/NCCP), Section 5.5. This can be achieved by one of the following:

1) Purchase or dedication of lands inside the City of Poway's Mitigation Area as a biological open space.
2) Payment of in-lieu fees into a mitigation bank administered by the City of Poway or a land trust acting as an agent of the City of Poway.

Applicable permits necessary to develop over the wetland habitat features in the project site require a no-net-loss ratio. The Poway Subarea HCP/NCCP states that mitigation ratios of 2:1 would

be required for impacts to fresh water marsh and open water. As described in the following table, the total mitigation for jurisdictional waters impacts is estimated to total 0.39 acres, but requires approval by the aforementioned resource agencies through their respective permit processes, which would occur before project development.

Mitigation Requirements

Vegetation Community	Impact	Mitigation Ratio	Total Mitigation Required
Freshwater Marsh	0.02	2:1	0.04
Open Water	0.14	2:1	0.28
Concrete-Lined Channel	0.07	1:1	0.07
Total	**0.16**	—	**0.39**

Source: Appendix C.

MM-BR-3 If it is not feasible to avoid trees on the project site, the project applicant shall replace all impacted trees as follows:

1) Native coast live oaks (*Quercus agrifolia*) will be mitigated at minimum 4:1 ratio and shall use 24-inch box specimen trees to be located on site.
2) Any non-native trees removed will be replaced with one 15-gallon tree per 750 square feet of ornamental landscape (20 percent of which shall be 24-inch box specimen trees).

4.3.7 Level of Significance After Mitigation

MM-BR-1 would reduce **Impact BR-1** and **Impact BR-CU-1** by ensuring that if an active migratory bird or raptor nest is identified, a letter report or mitigation plan (pre-construction survey) in conformance with applicable state and federal law (e.g., appropriate follow-up surveys, monitoring schedules, construction, noise barriers, and/or buffers up to 300 feet) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs, or disturbance of breeding activities, is avoided, including, but not limited to, the specific performance criteria expressly listed in MM-BR-1. The report or mitigation plan shall be submitted to the City for review and approval. The recommendations contained in the mitigation plan shall be implemented to the satisfaction of the City. Additionally, the proposed project would incorporate open space such as agrifields, basins, and gardens that could function as foraging habitat for raptors and other species. By avoiding migratory bird, raptor nests, and functional foraging habitats for raptors and other species, **Impact BR-1** and **Impact BR-CU-1** would be reduced to **less than significant**.

MM-BR-2 would reduce **Impact BR-2**, **Impact BR-3**, **Impact BR-4**, **Impact BR-CU-2,** and **Impact BR-CU-3** by ensuring that the impacts to the 0.16 acres of sensitive biological resources (open water and freshwater marsh) and 0.23 acres of jurisdictional waters and wetlands would be mitigated. Additionally, the collection of appropriate permits would mitigate impacts. Implementation of **MM-BR-2** would reduce **Impact BR-2**, **Impact BR-3**, **Impact BR-4**, **Impact BR-CU-2**, and **Impact BR-CU-3** to **less than significant.**

MM-BR-3 would reduce **Impact BR-4** and **Impact BR-CU-4** to **less than significant** by replacing any removed trees as described above.

With the implementation of **MM-BR-1** through **MM-BR-3**, all impacts to biological resources would be reduced to **less-than-significant** levels.



SOURCE: RECON 2019; SANGIS 2017, 2019

DUDEK

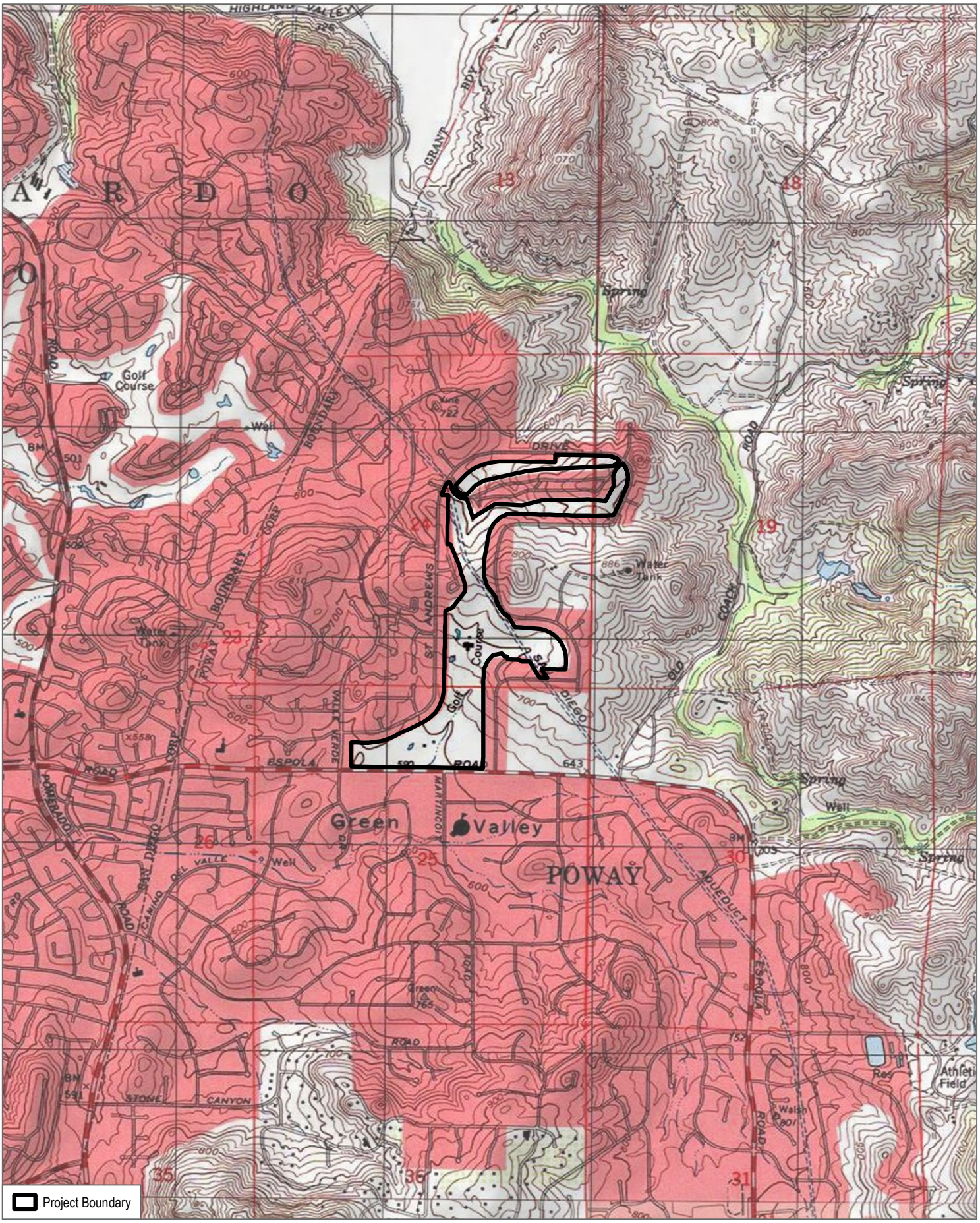
0 250 500 Feet

FIGURE 4.3-1

Vegetation Communities and Land Cover Types

The Farm in Poway

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SOURCE: USGS 7.5-Minute Series Escondido Quadrangle; SANGIS 2019

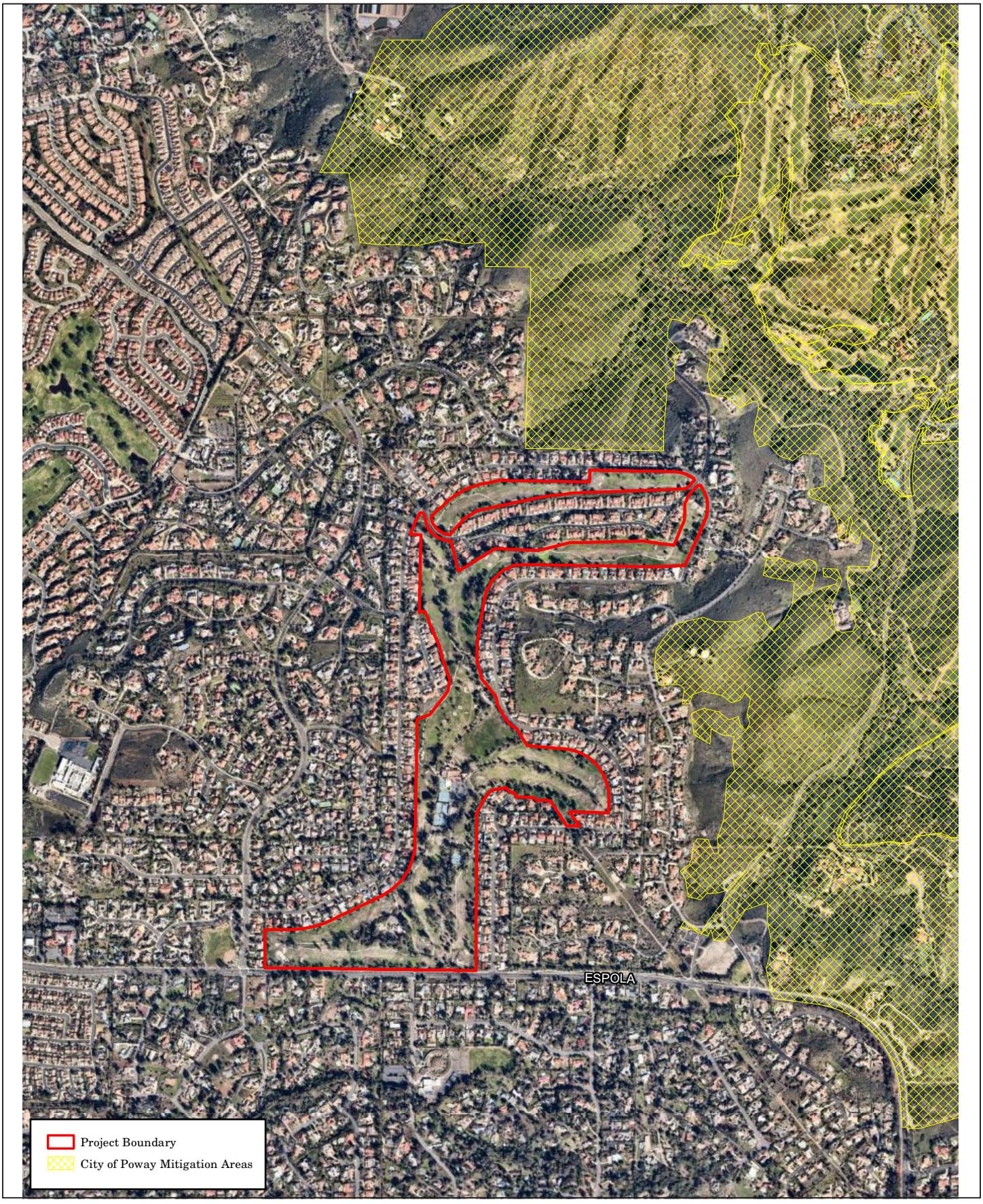
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FIGURE 4.3-2

Project Location on USGS Map

The Farm in Poway

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SOURCE: RECON 2019

FIGURE 4.3-3

Project Location in Relation to City of Poway HCP Mitigation Area

The Farm in Poway

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4.4 Cultural and Tribal Cultural Resources

This section describes the existing cultural resources conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The information provided in this section was incorporated from the Cultural Resources Study for The Farm in Poway Project prepared by Brian F. Smith and Associates Inc. in February 2020. A copy of this report is included in this Environmental Impact Report (EIR) as Appendix D.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to cultural and tribal cultural resources focused on the following topics:

- Presence of cultural resources
- Acknowledgment of tribal history
- Requests for formal tribal consultation

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.4.1 Existing Conditions

Cultural Setting

Prehistoric Period

The prehistoric cultural sequence in the County of San Diego (County) is generally conceived as comprising three basic periods: (1) the Paleoindian, dated between about 11,500 and 8,500 years ago and manifested by the artifacts of the San Dieguito Complex; (2) the Archaic, lasting from about 8,500 to 1,500 years ago (AD 500) and manifested by the cobble and core technology of the La Jollan Complex; and (3) the Late Prehistoric, lasting from about 1,500 years ago to historic contact (i.e., AD 500 to 1769) and represented by the Cuyamaca Complex. The latest complex is marked by the appearance of ceramics, small arrow points, and cremation burial practices.

The Paleoindian Period in the County is most clearly associated with the San Dieguito Complex, as identified by Rogers (1938, 1939, 1945, as cited in Appendix D). The San Dieguito assemblage consists of well-made scraper planes, choppers, scraping tools, crescentics, elongated bifacial knives, and leaf-shaped points. The San Dieguito Complex is thought to represent an early emphasis on hunting (Warren et al. 1993, as cited in Appendix D).

The Archaic Period brings an apparent shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. The local cultural manifestations of the Archaic Period are called the La Jollan Complex along the coast and the Pauma Complex inland. Pauma Complex sites lack the shell that dominates many La Jollan sites. Along with an economic focus on gathering plant resources, the settlement system appears to have been more sedentary. The La Jollan assemblage is dominated by rough cobble-based choppers and scrapers, and slab and basin metates. Large side-notched and Elko series projectile points appeared during this period. Large deposits of marine shell at coastal sites argue for the importance of shellfish gathering to the coastal Archaic Period economy.

Near the coast and in the Peninsular Mountains beginning approximately 1,500 years ago, patterns began to emerge that suggest the ethnohistoric Kumeyaay. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversify and intensify during this period, with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, but effective technological innovations. The late prehistoric archaeology of the San Diego coast and foothills is characterized by the Cuyamaca Complex. It is primarily known from the work of D. L. True at Cuyamaca Rancho State Park (True 1970, as cited in Appendix D). The Cuyamaca Complex is characterized by the presence of steatite arrow shaft straighteners, steatite pendants, steatite comales (heating stones), Tizon Brownware pottery, ceramic figurines reminiscent of Hohokam styles, ceramic "Yuman bow pipes," ceramic rattles, miniature pottery, various cobble-based tools (e.g., scrapers, choppers, hammerstones), bone awls, manos and metates, mortars and pestles, and Desert side-notched (more common) and Cottonwood Series projectile points (Appendix D).

Ethnohistory

The Kumeyaay (also known as Kamia, Ipai, Tipai, and Diegueño) occupied the southern two-thirds of the County. The Kumeyaay lived in semi-sedentary, politically autonomous villages or rancherias. Settlement systems typically consisted of two or more seasonal villages with temporary camps radiating away from these central places (Cline 1984a, 1984b, as cited in Appendix D). The Kumeyaay economic system consisted of hunting and gathering with a focus on small game, acorns, grass seeds, and other plant resources. The most basic social and economic unit was the patrilocal extended family. A wide range of tools were made of locally available and imported materials. A simple shoulder-height bow was used for hunting. Numerous other flaked stone tools were made including scrapers, choppers, flake-based cutting tools, and biface knives. Preferred stone types were locally available metavolcanics, cherts, and quartz. Obsidian was imported from the deserts to the north and east. Ground stone objects include mortars and pestles typically made of locally available, fine-grained granite. Both portable and bedrock types are known. The Kumeyaay made fine baskets, employing either coiled or twined construction. The Kumeyaay also made pottery, using the paddle-and-anvil technique. Most were a plain brown utility ware called Tizon Brownware, but some were decorated (Meighan 1954, as cited in Appendix D; May 1976, 1978, as cited in Appendix D). Primary ethnographic sources on traditional Kumeyaay lifeways are provided in the ethnographic work of Cline (1984a, 1984b, as cited in Appendix D), Gifford (1918, 1931, as cited in Appendix D), Kroeber (1925, as cited in Appendix D), and Spier (1923, as cited in Appendix D).

Spanish, Mexican, and American Periods

The Spanish Period (1769–1821) represents a time of European exploration and settlement. Military and naval forces along with a religious contingent founded the San Diego Presidio, the pueblo of San Diego, and the San Diego Mission in 1769 (Rolle 1998, as cited in Appendix D). Native American culture in the coastal strip of California rapidly deteriorated despite repeated attempts to revolt against the Spanish invaders (Cook 1976, as cited in Appendix D). One of the hallmarks of the Spanish colonial scheme was the rancho system. In an attempt to encourage settlement and development of the colonies, large land grants were made to meritorious or well-connected individuals.

In 1821, Mexico declared its independence from Spain. During the Mexican Period (1822–1848), the mission system was secularized by the Mexican government and these lands allowed for the dramatic expansion of the rancho system. The southern California economy became increasingly based on cattle ranching.

The Mexican Period ended when Mexico signed the Treaty of Guadalupe Hidalgo on February 2, 1848, concluding the Mexican–American War (1846–1848) (Rolle 1998, as cited in Appendix D). The great influx of Americans and Europeans resulting from the California Gold Rush in 1848–1849 eliminated many remaining vestiges of Native American culture.

The first recorded Anglo-European settler in the Poway area was Philip Crosthwaite, who began ranching there in 1859. By 1870, the number of settlers in the area had increased to the point that resident Castanos Paine applied for and was granted the position of postmaster. Paine ran a ranch that also served as a way station for the stage running to and from San Diego. The population of the Poway area continued to grow through the 1880s, reaching approximately 800 by 1887. Farming was the main occupation, with numerous orchards and vineyards established and grains being farmed. Dairy ranching and beekeeping were also common. The chance of a railroad line running through the Poway area led to some land speculation in the 1880s, but the line did not materialize and land speculation dried up. By 1900, there were still less than 1,000 people living in the Poway area and it remained basically rural through the early to mid-1950s. The first subdivision built in Poway in the late 1950s was a result of the post-World War II boom affecting much of the County. Lake Poway was constructed in 1971, establishing a more stable and permanent water supply for the growing population. Poway incorporated in 1980, establishing a Council/Manager form of government (City of Poway 2016, as cited in Appendix D).

Methodology

A record search was conducted through the California Historical Resources Information System and the South Coastal Information Center (SCIC) at San Diego State University to determine if there are any cultural resources on the project site. On January 11, 2019, a letter requesting a search of the Sacred Lands Files was sent to the Native American Heritage Commission (NAHC) in Sacramento, California.

RECON archaeologist, Richard Shultz, and Native American monitors, Banning Taylor, Jr., and Alyssa Soto, surveyed the project site on September 22, 2017. The surveying team inspected the site for evidence of archaeological materials such as flaked and ground stone tools, ceramics, milling features, and human remains. A sub-meter GPS unit provided the team sub-meter accuracy and real-time position correction and recording capability. Photographs of the existing conditions on site can be found in Appendix D.

Record Search

A record search of the project site with a one-mile-radius buffer was conducted at the SCIC at San Diego State University on September 25, 2017. The search included a review of the National Register of Historic Places (NRHP) for the County, National Historic Landmarks, California Register of Historical Resources (CRHR), California Registered Landmarks, California Points of Historical Interests, historic resources inventory files, archaeological inventory files, a bibliography of previous cultural resources investigations, and various historic maps.

No cultural resources are recorded within the project site or within one mile of the project site. The SCIC identified one historic-era site, two historic structures, one multi-component site (both prehistoric and historic), 42 prehistoric sites, and one prehistoric isolated artifact within a one-mile radius (Table 4.4-1). The historic site consisted of masonry wall remnants. The historic structures were two utility poles. The prehistoric sites included bedrock milling features, bedrock milling features with artifacts, lithic scatters, ceramic scatters, ground stone, faunal remains (shellfish and bone), and pictographs.

Table 4.4-1. Cultural Resources within One Mile of the Project Site

Primary #	Trinomial #	Site Type	Period	Date Recorded
P-37-000007	CA-SDI-000007	Rock art: petroglyphs, pictographs	Prehistoric	1957
P-37-000008	CA-SDI-000008	Rock art: pictographs, bedrock milling, ceramic scatter, ground stone	Prehistoric	1957
P-37-000010	CA-SDI-000010	Bedrock milling, lithic scatter; wall remnants	Multicomponent	1981
P-37-000160	CA-SDI-000160	Masonry wall remnants	Historic	1957
P-37-000576	CA-SDI-000576	Bedrock milling, lithic scatter, ground stone	Prehistoric	n/a
P-37-000578	CA-SDI-000578	Lithic scatter, ground stone	Prehistoric	n/a
P-37-000581	CA-SDI-000581	Lithic scatter, ground stone	Prehistoric	n/a
P-37-000582	CA-SDI-000582	Lithic scatter, ground stone	Prehistoric	n/a
P-37-000590	CA-SDI-000590	Bedrock milling, lithic scatter, ground stone	Prehistoric	n/a
P-37-000807	CA-SDI-000807	Lithic scatter	Prehistoric	1960
P-37-000808	CA-SDI-000808	Bedrock milling, ceramic scatter	Prehistoric	1960
P-37-004561	CA-SDI-004561	Bedrock milling, lithic scatter	Prehistoric	1971
P-37-004565	CA-SDI-004565	Bedrock milling, lithic scatter, ceramic scatter, ground stone	Prehistoric	1973
P-37-004566	CA-SDI-004566	Lithic scatter	Prehistoric	1973
P-37-004567	CA-SDI-004567	Lithic scatter	Prehistoric	1973
P-37-004568	CA-SDI-004568	Lithic scatter, ground stone	Prehistoric	1973
P-37-004569	CA-SDI-004569	Lithic scatter, ground stone	Prehistoric	1973
P-37-007858	CA-SDI-007858	Bedrock milling, lithic scatter, ceramic scatter, ground stone	Prehistoric	1980
P-37-007859	CA-SDI-007859	Bedrock milling, lithic scatter, ground stone	Prehistoric	1980
P-37-007860	CA-SDI-007860	Bedrock milling, ground stone	Prehistoric	1980
P-37-007862	CA-SDI-007862	Lithic scatter	Prehistoric	1980
P-37-008745	CA-SDI-008745	Ceramic scatter, lithic scatter	Prehistoric	1981
P-37-008746	CA-SDI-008746	Bedrock milling	Prehistoric	1981
P-37-011153	CA-SDI-011153	Bedrock milling	Prehistoric	1989
P-37-011154	CA-SDI-011154	Lithic scatter	Prehistoric	1989
P-37-011155	CA-SDI-011155	Lithic scatter, ground stone	Prehistoric	1989
P-37-011516	CA-SDI-011516	Lithic scatter, ground stone	Prehistoric	1989
P-37-011517	CA-SDI-011517	Bedrock milling	Prehistoric	1989
P-37-011520	CA-SDI-011520	Lithic scatter, ground stone	Prehistoric	1989
P-37-011521	CA-SDI-011521	Bedrock milling, lithic scatter, ceramic scatter, ground stone, faunal remains	Prehistoric	1989
P-37-011522	CA-SDI-011522	Bedrock milling, rock features, lithic scatter, faunal remains	Prehistoric	1989
P-37-011523	CA-SDI-011523	Bedrock milling, lithic scatter, ceramic scatter, ground stone, faunal remains	Prehistoric	1989
P-37-011524	CA-SDI-011524	Bedrock milling	Prehistoric	1989
P-37-011529	CA-SDI-011529	Bedrock milling, rock features, lithic scatter, faunal remains	Prehistoric	1989
P-37-011532	CA-SDI-011532	Bedrock milling	Prehistoric	1989
P-37-014683	CA-SDI-014286	Bedrock milling, lithic scatter, ground stone	Prehistoric	1996
P-37-014746		Isolate: flake	Prehistoric	1979
P-37-016197	CA-SDI-014736	Bedrock milling, lithic scatter, ceramic scatter	Prehistoric	1998

Table 4.4-1. Cultural Resources within One Mile of the Project Site

Primary #	Trinomial #	Site Type	Period	Date Recorded
P-37-017105	CA-SDI-015119	Bedrock milling	Prehistoric	2008
P-37-018384	CA-SDI-015587	Bedrock milling	Prehistoric	1999
P-37-019020	CA-SDI-013714	Possible hearths, lithic scatter, ceramic scatter, ground stone	Prehistoric	1994
P-37-019022	CA-SDI-013716	Bedrock milling	Prehistoric	1994
P-37-024332	CA-SDI-016141	Bedrock milling, lithic scatter, ceramic scatter, ground stone, faunal remains	Prehistoric	2017
P-37-024333	CA-SDI-016142	Lithic scatter, ceramic scatter, ground stone, faunal remains	Prehistoric	2001
P-37-026992	CA-SDI-017671	Bedrock milling	Prehistoric	2005
P-37-030247	—	Utility pole	Historic	2008
P-37-030290	—	Utility pole	Historic	2008

Source: Appendix D.

The record search indicated that five previous investigations intersect with the project site.

The 1968 Escondido 7.5-minute quadrangle illustrated sewage disposal ponds in the southern part of the project site near the existing ponds. Additionally, the San Diego Aqueduct runs underground in a northwest–southwest direction through the center of the project site. The first pipeline was completed in 1947 and brings water to the County from the Colorado River. Three additional pipelines were constructed between 1954 and 1973 (Crawford 2010, as cited in Appendix D). Air photographs available online show the project site in agriculture in 1946, 1947, and 1953 (Nationwide Environmental Title Research LLC 2015, as cited in Appendix D). By 1964 the roads surrounding the project site had been completed, but grading for the golf course had not begun, and subsequent photographs from the 1960s also showed the golf course undeveloped. The houses surrounding the golf course has not been constructed in the 1960s. A 1980 photograph shows the golf course, clubhouse, and surrounding houses in place. A 1989 photograph shows substantial alteration to the clubhouse. Subsequent photographs from the 1990s and 2000s show little change (Appendix D).

Tribal Resources

A letter was sent to the NAHC in Sacramento, California, on January 17, 2019, requesting a search of their Sacred Lands Files. A reply was received from the NAHC on January 22, 2019, stating that a search of the Sacred Lands Files produced negative results. Contact letters were sent out to all groups and individuals on the NAHC contact list on February 19, 2019. On February 20, 2019, an email response was received from Mr. Clint Linton representing the Iipay Nation of Santa Ysabel. Mr. Linton requested additional information regarding the proposed project. On February 20, 2019, RECON Archaeologist Harry Price called Mr. Linton and the two discussed the proposed project. Mr. Linton's email was forwarded to the City. On February 21, 2019, another response was received—from Mr. Ralph Goff of the Campo Band of Mission Indians. Mr. Goff requested a copy of the survey report and requested that a qualified Kumeyaay monitor be present for all future surveys and ground-disturbing activities. Mr. Goff's reply was forwarded to the City on February 26, 2019 (Appendix D).

On March 20, 2019, a response was received by Ray Teran of the Viejas Band of Kumeyaay Indians. Mr. Teran requested that a Kumeyaay Cultural Monitor be present on the project site for all ground disturbing activities (Teran, pers. comm. 2019).

On March 25, 2019, a response was received by Lisa Cumper of the Jamul Indian Village of California requesting consultation. This consultation is currently ongoing. (Cumper, pers. comm. 2019).

On August 6, 2019, another request was received by Harry P. Cuero Jr. of the Campo Band of Mission Indians in a letter dated July 25, 2019. Mr. Cuero requested AB-52 and SB-18 Consultation with the City for the proposed project (Cuero, pers. comm. 2019). The City responded to set up the requested consultation on August 22, 2019, October 10, 2019, and again on October 21, 2019. The City did not hear back from Mr. Cuero about setting up a consultation. In the last correspondence on October 21, 2019, the City indicated "I will consider this consultation closed if I do not hear from you within 30 days of this email." No further replies or requests have been received by Mr. Cuero, the Campo Band of Mission Indians, or other tribes.

Survey Results

On September 22, 2017, a field survey of the project site was conducted by RECON Archaeologist Richard Shultz and by Native American monitors Banning Taylor, Jr., and Alyssa Soto. The survey was conducted to identify previously unrecorded cultural resources and assess the potential for the proposed project to affect any potentially significant cultural resources found on the project site.

The majority of the project site had zero ground visibility due to the dense grass on the fairways and greens. The areas outside the fairways and greens varied in visibility. Some areas were covered in leaf duff with 10 percent visibility, whereas other areas had excellent visibility. The survey team focused on the bedrock lining the fairways and greens. The entire project site has been disturbed by the construction of the golf course and associated clubhouse, ancillary buildings, tennis courts, and roads. The areas outside the fairways and greens may have limited disturbance. Photographs of the varying conditions of the project site during the survey can be found in Appendix D.

Two previously unrecorded cultural resources were identified during the field survey. The first resource (Resource 8858-RDS-001) consists of bedrock milling feature. A single amorphous slick is located on a prominent vertical boulder between the ninth hole tee and eighth hole green, and surrounded by palm and eucalyptus trees. The slick measures approximately 39.3 by 23.6 inches. The second resource (Resource 8858-RDS-002) consists of two bedrock milling features. The first bedrock milling feature contains one slick, measuring approximately 7.9 by 11.8 inches. It is located on a low triangular boulder surrounded by in situ outcrops and a push-pile of boulders, approximately 200 feet south of the first resource and 230 feet south of the eighth hole green. The second bedrock milling feature contains a basin/slick on a low embedded boulder, approximately 230 feet south of the above slick. The basin/slick measures approximately 11.8 by 15.7 inches. Both features are located west of StoneRidge Country Club Lane and surrounded by palm trees. No surface artifacts were noted at either resource location. The level of disturbance was difficult to determine; however, the bedrock milling features appear to be at their original elevations implying minimal disturbances surrounding these features. California Department of Parks and Recreation primary site forms were filled out for the two milling features and will be submitted to the SCIC. These forms can be found in Appendix D.

4.4.2 Relevant Plans, Policies, and Ordinances

Federal

National Historic Preservation Act

The National Historic Preservation Act (16 USC 470 et seq.) establishes the nation's policy for historic preservation and sets in place a program for the preservation of historic properties by requiring federal agencies to consider effects to significant cultural resources (e.g., historic properties) prior to undertakings.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of projects on historic properties (resources included in or eligible for the NRHP). It also gives the Advisory Council on Historic Preservation and the state historic preservation offices an opportunity to consult. Federal agencies issuing permits for the proposed project would be required to comply with National Historic Preservation Act requirements.

Antiquities Act

The Antiquities Act of 1906 (16 USC 431–433) protects any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the government of the United States from appropriation, excavation, injury, or destruction without the permission of the secretary of the department of the government having jurisdiction over the lands on which the antiquities are situated. The California Department of Transportation, National Park Service, Bureau of Land Management, U.S. Forest Service, and other federal agencies have interpreted objects of antiquity to include fossils. The Antiquities Act provides for the issuance of permits to collect fossils on lands administered by federal agencies and requires projects involving federal lands to obtain permits for both paleontological resources evaluation and mitigation efforts.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act (42 USC 1996) protects Native American religious practices, ethnic heritage sites, and land uses.

Native American Graves Protection and Repatriation Act

Enacted in 1990, the Native American Graves Protection and Repatriation Act conveys to American Indians of demonstrated lineal decent the human remains and funerary or religious items that are held by federal agencies and federally supported museums, or that have been recovered from federal lands. It also makes the sale or purchase of American Indian remains illegal, whether or not they derive from federal or Indian lands.

Secretary of the Interior Standards

The Secretary of the Interior is the head of the U.S. Department of the Interior, which is the nation's principal conservation agency. The department oversees agencies including the Bureau of Land Management, the Bureau of Indian Affairs, and the National Park Service.

The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation

The purpose of the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation of 1983 is to (1) organize the information gathered about preservation activities; (2) describe results to be achieved

by federal agencies, states, and others when planning for the identification, evaluation, registration and treatment of historic properties; and (3) integrate the diverse efforts of many entities performing historic preservation into a systematic effort to preserve the nation's culture heritage.

The Secretary of the Interior's Standards for Rehabilitation

Developed in 1986, the Secretary of the Interior's Standards for Rehabilitation are 10 basic principles created to help preserve the distinctive character of a historic building and its site, while allowing for reasonable change to meet new needs.

The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings

The Secretary of the Interior's Standards for the Treatment of Historic Properties were developed to help protect the nation's irreplaceable cultural resources by promoting consistent preservation practices. The standards are a series of concepts about maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations; thus, they cannot, in and of themselves, be used to make essential decisions about which features of a historic property should be saved and which be changed. But once an appropriate treatment is selected, the standards provide philosophical consistency to the work.

State

Assembly Bill 52 (Chapter 532, Statute of 2014)

Assembly Bill (AB) 52 (Chapter 532, Statute of 2014) establishes a formal consultation process for California Native American tribes as part of the California Environmental Quality Act (CEQA) and equates significant impacts on tribal cultural resources with significant environmental impacts (California Public Resources Code, Section 21084.2). California Public Resources Code, Section 21074 defines tribal cultural resources as follows:

- Sites, features, places, sacred places, and objects with cultural value to descendant communities or cultural landscapes defined in size and scope that are:
    - Included in or eligible for listing in the California Register of Historical Resources (CRHR); or
    - Included in a local register of historic resources.
- 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 [California Public Resources Code] Section 5024.1.

Sacred places can include Native American sanctified cemeteries, places of worship, religious or ceremonial sites, and sacred shrines. In addition, both unique and non-unique archaeological resources, as defined in California Public Resources Code, Section 21083.2, can be tribal cultural resources if they meet the criteria detailed above. The lead agency relies upon substantial evidence to make the determination that a resource qualifies as a tribal cultural resource when it is not already listed in the CRHR or a local register.

AB 52 defines a "California Native American Tribe" (Tribe) as a Native American tribe located in California that is on the contact list maintained by the NAHC (California Public Resources Code, Section 21073). Under AB 52, formal consultation with the Tribes is required prior to determining the level of environmental document if a Tribe has

requested to be informed by the lead agency of proposed projects and if the Tribe, upon receiving notice of the project, accepts the opportunity to consult within 30 days of receipt of the notice. AB 52 also requires that consultation, if initiated, address project alternatives and mitigation measures for significant effects, if specifically requested by the Tribe. AB 52 states that consultation is considered concluded when either the parties agree to measures to mitigation or avoid a significant effect on tribal cultural resources, or when either the Tribe or the agency concludes that mutual agreement cannot be reached after making a reasonable, good-faith effort. Under AB 52, any mitigation measures recommended by the agency or agreed upon with the Tribe may be included in the final environmental document and in the adopted mitigation monitoring program if they were determined to avoid or lessen a significant impact on a tribal cultural resource. If the recommended measures are not included in the final environmental document, then the lead agency must consider the four mitigation methods described in California Public Resources Code, Section 21084.3. Any information submitted by a Tribe during the consultation process is considered confidential and is not subject to public review or disclosure. It will be published in a confidential appendix to the environmental document unless the Tribe consents to disclosure of all or some of the information to the public.

California Historical Landmarks

The State Historical Landmarks Program places an emphasis on well-known places and events in California history. The goals of the program include the preservation and maintenance of registered landmarks, most of which include missions, early settlements, battles, and golf rush sites.

California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act of 2001 conveys to American Indians of demonstrated lineal descent the human remains and funerary items that are held by state agencies and museums.

California Points of Historical Interest Program

The State Points of Historical Interest Program was established in the effort to accommodate local historic properties not able to meet the restrictive criteria of the State Historical Landmarks Program. The program requires the participation of local governmental officials, such as the chairperson of the Board of Supervisors, in the approval process.

California Health and Safety Code, Section 7050.5 – Human Remains

Section 7050.5(b) of the California Health and Safety Code specifies protocol when human remains are discovered. The code states the following:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the [County of San Diego Coroner's office] in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in section 5097.98 of the PRC [California Public Resources Code].

California Public Resources Code

Section 5097–5097.6 – Archaeological, Paleontological, and Historical Sites

California Public Resources Code, Section 5097–5097.6, outlines the requirements for cultural resource analysis before the start of any construction project on state lands. This section identifies that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands, and provides for criminal sanctions. This section was amended in 1987 to require consultation with the NAHC whenever Native American graves are found. Violations for the taking or possessing remains or artifacts are felonies.

Section 5097.9–5097.991 – Native American Heritage

California Public Resources Code, Section 5097.9–5097.991, identifies that no public agency, and no private party using or occupying public property, or operating on public property, under a public license, permit, grant, lease, or contract made on or after July 1, 1977, shall in any manner whatsoever interfere with the free expression or exercise of Native American religion as provided in the U.S. Constitution and the California Constitution; nor shall any such agency or party cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require it. In addition, this section details the composition and responsibilities of NAHC. NAHC strives for the preservation and protection of Native American human remains, associated grave goods, and cultural resources. NAHC has developed a strategic plan to assist the public, development community, local and federal agencies, education institutions, and California Native Americans to better understand problems relating to the protection and preservation of cultural resources and to serve as a tool to resolve these problems and create an awareness among lead agencies and developers of the importance of working with Native American (NAHC 2008, as cited in Appendix D). California Public Resources Code, Sections 5097.91 and 5097.98, were amended by AB 2641 in 2006. AB 2641 authorizes the NAHC to bring an action to prevent damage to Native American burial grounds or places of worship and establishes more specific procedures to be implemented in the event that Native American remains are discovered.

Senate Bill 18 – Traditional Tribal Cultural Places

As of March 1, 2005, Senate Bill 18 (California Code, Sections 65352.3 and 65352.4) requires that, before the adoption or amendment of a general plan proposed on or after March 1, 2005, a city or county must consult with Native American tribes with respect to the possible preservation of, or the mitigation of impacts to, specified Native American places, features, and objects located within that jurisdiction. The consultation intends to establish a meaningful dialogue regarding potential means to preserve Native American places of importance. It allows for tribes to hold conservation easements and for tribal cultural places to be included in open space planning.

California Register of Historical Resources

The California Office of Historic Preservation maintains the CRHR, which is the authoritative guide to the state's significant historic and archaeological resources. The program provides for the identification, evaluation, registration, and protection of California's historic resources. The CRHR encourages public recognition and protection of resources of architectural, historic, archaeological, and cultural significance; identifies historic resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protection to resources under CEQA.

The CRHR also has established context types to be used when evaluating the eligibility of a property or resources for listing. The four criteria are as follows:

- The property or resource is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
- The property or resource is associated with the lives of persons important to local, California, or national history.
- The property or resource represents the work of a master, or possesses high artistic values.
- The property or resource has yielded, or is likely to yield, information important to prehistory or history of the local area, California, or the nation.

Similar to the NRHP, eligibility for the CRHR requires an establishment of physical integrity, including the aspects previously described. The CRHR's list of special considerations is less stringent than that of the NRHP, providing allowances for relocated buildings, structures, or objectives as reduced requirements for physical integrity.

California Environmental Quality Act

CEQA (California Public Resources Code, Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations. Resource importance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of the County in history, architecture, archaeology, engineering, and culture. A number of criteria are used in demonstrating resource importance. Specifically, criterial outlined in CEQA provide the guidance for making such a determination. The following CEQA and Public Resources Code Sections detail the criteria that a resource must meet in order to be determined important.

According to CEQA (14 CCR 15064.5a), the term "historical resource" includes the following:

1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (CRHR) (California Public Resources Code, Section 5024.1; 14 CCR 4850 et seq.).
2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC [California Public Resources Code] or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that is not historically or culturally significant.
3) Any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (California Public Resources Code, Section 5024.1; 14 CCR 4852), including the following:
    a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    b. Is associated with the lives of persons important in our past;

c. 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

d. Has yielded, or may be likely to yield, information important in prehistory or history.

4) The fact that a resource is not listed on, or determined eligible for listing on the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the PRC), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

According to CEQA (14 CCR 15064.5b), a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change as:

1) Substantial adverse change in the significant of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

2) The significance of a historical resource is materially impaired when a project:

a. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, including in the CRHR; or

b. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resources is not historically or culturally significant; or

c. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion on the CRHR as determined by a lead agency for purposes of CEQA.

Section 15064.5(c) of the CEQA Guidelines applies to effects on archaeological sites and contains the following additional provisions regarding archaeological sites:

1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).

2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of PRC, Section 15126.4 of the guidelines, and the limits contained in Section 21083.2 of the PRC do not apply.

3) If an archaeological site does not meet the criteria defined in subsection (a) but does meet the definition of a unique archaeological resource in Section 21803.2 of the PRC, the site shall be treated in accordance with the provisions of Section 21083.2. The time treated in accordance with the provisions of Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
4) If an archaeological resource is neither a unique archaeological nor historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or Environmental Impact Report, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Section 15064.5 (d) and (e) contain additional provisions regarding human remains.

Regarding Native American human remains, paragraph (d) provides the following:

> When an Initial Study identifies the existence of, or the probable likelihood of, Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in PRC Section 5097.98. The applicant may develop an agreement for treating or disposing of with appropriate dignity the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:
>
> 1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Healthy and Safety Code Section 7050.5).
> 2) The requirements of CEQA and the Coastal Act.

Regarding tribal cultural resources, California Public Resources Code, Section 21074(a) and (b) provides the following:

> A "tribal cultural resource" is defined as any of the following under its subsections (a)–(c):
>
> a) (1) Sites, features, places, and objects with cultural value to descendant communities or cultural landscapes that are any of the following:
>
> A. Included 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.
> C. Deemed to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1.
>
> b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
> c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Additionally, an EIR, mitigated negative declaration, or negative declaration for a project with a significant impact on an identified tribal cultural resource cannot be certified or adopted unless one of the following occurs:

1) The consultation process between the tribe and the lead agency has concluded;
2) The tribe requested consultation but failed to provide comments or otherwise failed to engage in consultation; or
3) The lead agency provided notice of the project to a tribe and the tribe failed to request consultation within the 30 day deadline.

Local

City of Poway Municipal Code

Chapter 17.45 of the City's Municipal Code discusses Historical Structure. Its purpose is to "protect, enhance and perpetuate historic/cultural resources, sites, and districts that represent or reflect elements of the City's cultural, social, economic, political and architectural history for the public health, safety and welfare of the people of the City," amongst other purposes (City of Poway 2019). Definitions, process of designation, and criteria for historic landmarks in the City are detailed in Sections 17.45.020, 17.45.040, and 17.45.050 the City's Municipal Code, respectively. Permits must be issued for the demolition of historic landmarks. Historic landmarks shall be kept in good repair, in accordance to Section 17.45.120 (City of Poway 2019).

Section 17.45.030 describes the four historical categories that a site can fall under in the City. The City has conducted a preliminary historic/cultural resources inventory covering 33 sites in the City. In order to change the categorization of an identified resource, or to add a building, structure, place or object to the inventory, the following criteria for evaluating historic/cultural resources have been established (City of Poway 2019):

A. Description of Categories. Four categories of resources are identified and classified A through D.
    a. Category A: This category is reserved for those structures, buildings, sites, or objects of major significance. The resource must meet one or more of the following criteria:
        i. It is the site of, or reflects special elements or events of the City's cultural, social, economic, political, aesthetic, engineering or architectural history; or
        ii. It is associated with persons or events important in regional, State or national history; or
        iii. It is a rare or particularly fine example of a certain architectural style or construction technique associated with a particular period of history; or
        iv. It is the work of an architect, engineer, or designer who has substantially influenced regional, State, or national trends or the development of the North County region; or
        v. Owing its unique location or singular physical characteristics, it represents an established feature of the neighborhood or City whose removal would adversely affect the appearance or spatial and design relationships of the area.
    b. Category B: Structures, buildings, sites, or objects in this category must have one of the following characteristics:
        i. It is associated with important persons, events, or eras in the City, regional, or State history;
        ii. Its original design, architecture, aspect of function of the resource is significant but has been altered, affecting its integrity;

iii. It is a good (but not rare or particularly outstanding) example of certain style or construction technique, or of the work of a prominent architect, engineer, or designer.

c. Category C: Structures, buildings, sites or objects in this category are:

i. It is a good example of a period of architecture design or construction; however, the design is more commonplace and there are many similar structures, buildings, sites or objects in the City;

ii. It is an important resource; however, substantial alterations have severely compromised its historic, cultural, or architectural significance.

d. Category D: Structures, buildings, sites, or objects in this category are:

i. Built prior to 1940, and clearly not significant terms of architectural style, appearance, design, construction, or association with important persons or events in City history.

B. Change in Category. Further research on any building, structure, site or object may yield information on their roles in history. This information may warrant their inclusion in a different category. Applications to change in categorization of an identified resources or to add a resource to the survey shall be submitted to the City Development Services Department. The application should contain information which provides justification for adding a historic/cultural resource to the survey or changing its category designation (Ord. 518, 1999; Ord. 296 Section 1, 1989)

Poway Comprehensive Plan: General Plan

The Poway Comprehensive Plan: General Plan (General Plan) includes the following policies and strategies regarding cultural and tribal resources (City of Poway 1991):

Goal I, Policy B – Subdivisions Design: Subdivisions should be designed to ensure that future land development supports the goals of the General Plan.

- **Strategy 11:** Significant existing natural resources shall be incorporated into the design of new projects rather than removed. These shall include, but are not limited to, large mature trees, sensitive biological habitat and vegetation, streams, steep hillsides, major rock outcroppings and archaeological and historical structures.
- **Strategy 17:** Development should be concentrated in the least environmentally sensitive locations in order to preserve open space, retain natural vegetation and protect natural, cultural and historic features.

Goal IV, Policy D – Archaeological Sites: Archaeological resources are an important part of our heritage and should be preserved and protected.

- **Strategy 1:** Archaeological guidelines for the treatment of archaeological resources discovered during the environment review process shall be implemented.
- **Strategy 2:** The City shall require that all artifacts recovered from sites within Poway during environmental impacts studies be presented to the City for permanent curation. This also recommended for the sphere of influence. The City shall designate the repository (i.e., a museum) for the artifacts or direct that a suitable structure be built or converted within the city boundaries to house the collections. The City shall ensure the proper treatment of the artifacts by selecting an archaeologist/historian to define the necessary elements for curation of specimens as outlined by the National Park Service. If the City cannot designate a facility as outlined by the National Park Service.

If the City cannot designate a facility to curate the artifacts, then an agreement could be reached with the Poway Historical Society or the San Diego Archaeological Society to temporarily curate the artifacts.

- **Strategy 3:** Consider mitigation alternatives which include "in kind" measures that provide unusual or more beneficial results than the mitigation measures listed in the City archaeological/historical guidelines.
- **Strategy 4:** Maintain a listing of significant prehistoric sites and document the locations of all open space easement that include archaeological sites. These easements have been granted to protect resources; however, without acknowledging the locations of such easements, the success of the use of such easements for resource protection cannot be assured. The City should conduct a research effort to determine where easements for archaeological sites are located, especially those easements where "inherited" from the County of San Diego when the city was incorporated.

Goal IV, Policy E – Historical Sites: The historical structures which remain in Poway contribute significantly to the rural small town character of the community and should be preserved.

- **Strategy 1:** Complete a comprehensive survey to identify and evaluate historic structures and sites in Poway.
- **Strategy 2:** Maintain a Historic Sites List that will include a register of locations, photographs, and historically relevant information regarding each site, structure or feature recognized as historically sensitive or significant to the city's heritage. The Historic Sites List will include as its foundation, the criteria for relative categories of significance included in the City's Ordinance 296. The method to be used for adding structures to the Historic Sites List is also provided in Ordinance 296. Prehistoric sites should not be included on this list, as it will be available to the public and the locations of significant prehistoric sites should not be made publicly known.
- **Strategy 3:** Support community efforts to register local prehistoric and historic features that fulfill state or federal requirements. The basis for the registration of local sites of historic and prehistoric significance will be the Historic Sites List. The City shall consider funding a periodic review of the Historic Sites List by a qualified historian for the purpose of completing nomination forms for the National Register and state landmarks list.
- **Strategy 4:** Maintain appropriate legislation to apply alternative building code requirements as deemed necessary on an individual basis to preserve historic structure. The City shall also maintain appropriate legislation prohibiting the demolition of an historic structure without an evaluation of the condition of the structure and the costs of rehabilitation.
- **Strategy 5:** Study the feasibility of securing contracts with the owners of historic structures or places to restrict the use or alteration of the property or structure as defined in Government Code Section 50280 et seq. for tax advantages in the form of an historic easement. In the event that a contract or historic easement is executed, the City shall inform the County Assessor of any agreement reached for the purpose of historic preservation and encourage the Assessor to re-examine the assessment of the property based upon the agreement.
- **Strategy 6:** Prior to the demolition of any historic structure (for a definition of a historic structure, see Ordinance 296 and the archaeological guidelines filed at the City of Poway Planning Services Department), that structure shall be fully documented with plans, photographs, and an archaeological/architectural assessment. In the event that demolition is permitted for any historic structure within Categories A, B or C as described in Ordinance 296, mitigation may be accomplished through the payment of a fee which would be applied to the improvement of Old Poway Park. The City shall determine an equitable mitigation fee for the demolition of historic structures.

- **Strategy 7:** Mitigation of impacts to significant or sensitive historic structures may be accomplished by moving the structure to a new location within the city. This location should be similar in setting to the original site, depending upon the uniqueness of the original site.
- **Strategy 8:** Historic structures or places should not be designated for land uses that would lead to their demolition or to a depreciation in their value. Adjacent land uses should not conflict with the preservation of an historic structure or place.
- **Strategy 9:** Standards should be developed for community design adjacent to historic structures to preserve the integrity of the structure and its surroundings.

4.4.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to cultural and tribal cultural resources would occur if the project would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5d.
3. Disturb any human remains, including those interred outside of dedicated cemeteries.
4. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources defined in Public Resources Code section 5020.1(k).
5. Cause a substantial adverse change in the significance of a tribal cultural resources, defined in Public Resources Code section 21704 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 objective with cultural value to a California Native America tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set for 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.

4.4.4 Impacts Analysis

Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

The record search performed at the SCIC at San Diego State University and by the NAHC of their Sacred Land Files yielded no historical resources within or immediately adjacent to the project site. Additionally, the field survey found no historical resources on site. As such, with no known or identified historical resources on the project site, **no impacts** would occur.

Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

A survey of the project site found two bedrock milling features, Resource 8858-RDS-001 and Resource 8858-RDS-002, also referred to as Temp-1 and Temp-2 in Appendix D. As currently designed, these two bedrock milling features would be demolished or relocated during grading and/or site preparation. Information from the archeological testing program conducted by Brian F. Smith and Associates Inc. determined that neither bedrock milling feature represented a significant resource, as defined by CEQA (refer to Appendix D for further details). Additionally, both sites retain no additional research potential and the milling features represent the most common type of prehistoric resource in the City and County. Therefore, while implementation of the proposed project would result in the removal of these bedrock milling features, this would not represent a significant impact to cultural resources under CEQA and site-specific mitigation would not be required.

However, because the project site was graded before CEQA regulations were adopted in 1975, the potential exists that other cultural resources were present on the property prior to grading. Because cultural resources could be masked or buried beneath the graded golf course, monitoring of grading is recommended to locate and record any resources that may be exposed by grading. Therefore, impacts to significant archeological resources are **potentially significant (Impact CUL-1)** and mitigation measures are required (**MM-CUL-1**).

Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

No evidence of human remains were discovered during the records search nor the field survey. The project site was not tested or evaluated for human remains; however, it is unlikely that the project site was used as a burial ground or cemetery. There is no indication that the project site was used by Native Americans for religious, ritual, or other special activities. However, in the unlikely event that human remains are discovered on site during construction of the proposed project, impacts would be **potentially significant** (**Impact CUL-2**) and would require mitigation measures (**MM-CUL-2**).

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources defined in Public Resources Code section 5020.1(k)?

A records search of the proposed project area with a one-mile radius was conducted at the SCIC in September 2017. The search included a review of the NRHP for the County, National Historic Landmarks, California Register or Historical Resources, California Registered Historical Landmarks, California Points of Historical Interest, historic resources inventory files, archaeological inventory files, a bibliography of previous cultural resources investigations, and various maps. The records search yielded no tribal cultural resources within or immediately adjacent to the project site. Impacts would be **less than significant**.

Would the project cause a substantial adverse change in the significance of a tribal cultural resources, defined in Public Resources Code section 21704 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 objective with cultural value to a California Native America tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set for 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?

As discussed in Section 4.1.1, Existing Conditions, a NAHC record search of the Sacred Lands Files produced negative results and contact letters were sent to all groups and individuals on the NAHC contact list. Responses were received from the Iipay Nation of Santa Ysabel, Campo Band of Mission Indians, Viejas Band of Kumeyaay Indians, and Jamul Indian Village of California. As described above, because the project site was graded before CEQA regulations were adopted in 1975, the potential exists that other cultural resources, such as tribal cultural resources, were present on the property prior to grading. Therefore, if unknown tribal resources were unearthed during grading activities a potential significant impact may result **(Impact CUL-3)** and would require mitigation **(MM-CUL-1)**. As requested in correspondence, Native American monitors/representatives from the Kumeyaay nation shall be invited to participate in the monitoring program provided in MM-CUL-1.

The proposed project's impacts to cultural and tribal resources are listed as follows:

Impact CUL-1 The proposed project has the potential to unearth subsurface prehistoric archaeological materials during ground-disturbing activities, resulting in a potentially significant impact.

Impact CUL-2 In the event of accidental discovery of any human remains during construction of the proposed project, impacts associated with the disturbance of human remains would be potentially significant.

Impact CUL-3 If unknown tribal resources were unearthed during grading activities, then implementation of the proposed project has the potential to cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Section 21074 of the California Public Resources Code.

4.4.5 Cumulative Impacts

A cumulative impact, in terms of cultural resources, refers to the mounting aggregate effect upon the cultural, archaeological, historical, or tribal resources due to modern or recent historic land use (e.g., residential development) and natural processes (e.g., erosion) that result from acts of humans. The issue that must be explored in a cumulative impact analysis is the aggregate loss of information as well as the loss of recognized cultural landmarks and vestiges of our community cultural history. Table 3-2, Cumulative Projects, lists projects within the proposed project area that would have the potential for a cumulative impact.

Historic Resources

Cumulative projects located in the region would have the potential to result in a cumulative impact associated with the loss of historical resources through physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. Cumulative projects, such as the Aria Estates in the City of Poway, the Chalice Unitarian Universalist Congregation project in the City of Escondido, and the Del Prado Planned Development in the City of Escondido, within the City

and in nearby areas determined no impacts or less-than-significant impacts with mitigation to historical resources within their respective project sites. The records search determined that there are no designated historical resources found within the project site (City of Escondido 2016, 2017; City of Poway 2018). As such, with no known or identified historical resources on the project site, no impacts would occur. Therefore, **no cumulative impacts** would occur.

Archaeological Resources

Cumulative projects located in the region would have the potential to result in a cumulative impact associated with the loss of archaeological resources through development activities that could cause a substantial adverse change in the significance of an archaeological resource. Any cumulative projects that involve ground-disturbing activities, including the development of land uses as designated under the General Plan, infrastructure projects, and/or private developments would have the potential to result in significant impacts to archaeological resources. These projects would be regulated by applicable federal, state, and local regulations. The loss of archaeological resources on a regional level may be adequately mitigated through the data recovery and collection methods specified in the regulations.

The records search determined that no archaeological resources were on the project site; however, the field survey found two bedrock milling features. These milling features were subsequently tested for significance under CEQA criteria and it was determined that neither represented a significant resources, as defined by CEQA. Cumulative projects within the City and in nearby areas have been determined to have no impacts or less than significant impacts with mitigation. For example, the Aria Estates project in the City found no historic of prehistoric resources within their project site, however the potential to encounter buried or masked archaeological resources during grading was possible due to the moderate frequency of prehistoric archaeological sites surrounding the project area (City of Poway 2018). The potential impacts for the Aria project in the City would be less than significant with mitigation (City of Poway 2018). Similarly, the Chalice Universalist Congregation project in the City of Escondido found no archaeological resources during their survey but recognized the potential to encounter buried or masked resources, and therefore would lessen the potential impact to less than significant with mitigation (City of Escondido 2017). The proposed project would also have the potential to encounter buried or masked resources. However, an archaeological resources monitoring program would be implemented (**MM-CUL-1**) which would ensure that project-specific impacts would be less than significant. Since other cumulative projects within the City would be required to implement similar mitigation, as necessary, to avoid or reduce potential impacts to previously unknown archaeological resources, cumulative impacts would be **less than significant.**

Human Remains

Cumulative projects located in the region may have the potential to result in impacts associated with human remains due to grading, excavation, or other ground-disturbing activities. Projects that may result in significant impacts due to ground-disturbing activities include the development of land uses as designated under the General Plan, infrastructure projects, and/or private development. As discussed in Section 4.4.4, Impacts Analysis, the proposed project may have the potential to accidentally uncover human remains during ground-disturbing activities. In the event that any project, including the proposed project, encounters unknown human remains during construction or during archaeological work, compliance with California Health and Safety Code, Section 7050.5 would be required. Compliance with mandatory regulations during site preparation for all cumulative projects would prevent a cumulative impact from occurring to unknown human remains. As such, cumulative impacts would be **less than significant**.

Tribal Resources

For the proposed project, reasonably foreseeable projects within the cumulative impact study area are capable of collectively contributing, along with the proposed project's area of potential effect, to impacts on prehistoric resources associated with ancestral Native American lifestyles. In the cumulative study area, prehistoric and historic settlement patterns can be very broad; therefore it is prudent to consider a large study area when evaluating cumulative impacts.

Prehistoric site types that have been identified in the cumulative project area include small artifact scatters, bedrock milling features, temporary camps, rock shelters, and habitation sites. Prehistoric sites that have been determined to be significant are all habitation sites and/or sites with human remains. Historic period sites are predominantly refuse deposits consisting of food and beverage containers; building and/or structure foundations; buildings; mining-related features (e.g., pits, adits); and ranching-related features (e.g., fences) and transportation corridors (e.g., roads, railroads).

The proposed project's impacts to tribal cultural resources would be reduced to less than significant through mitigation measures that include Native American monitoring of grading activities, evaluation of any new discoveries, avoidance or data recovery at new discoveries, the placement of significant sites within an avoidance area, and the curation of all artifacts obtained during any testing and data recovery programs. Significant sites that are not placed within open space easements preserve the information through recordation, test excavations, and data recovery programs that would be presented in reports and filed with the appropriate agency and regional Information Center. The artifact collections from any potentially significant site would also be curated at an appropriate curation facility. Cultural resources located within the cumulative impact study area would be mitigated through similar measures.

Because the proposed project and those projects identified within the cumulative impact study area are primarily mitigated by the collection and curation of information and the preservation of the most important resources, adequate mitigation has occurred for in situ appreciation of and access to information regarding those sites for future generations. This reduces the potential for cumulative effects, and the proposed project would not contribute to a cumulatively significant impact to cultural resources. Impacts would be **less than significant**.

4.4.6 Mitigation Measures

The following mitigation measures would be implemented to reduce potentially significant impacts to less than significant.

MM-CUL-1 An archaeological resources monitoring program shall be implemented and include the following:

1) Prior to issuance of a grading permit, the applicant shall provide written verification that a qualified archaeologist has been retained to implement the monitoring program. This verification shall be presented in a letter from the project archaeologist to the Lead Agency.
2) The certified archaeologist shall attend the pre-grading meeting with the contractors to explain and coordinate the requirements of the monitoring program.
3) The consulting archaeologist shall direct the field monitor during grading of all areas identified for development.
4) Native American monitoring will be required during grading, unless the certified archaeologist determines that the potential for cultural resources has been exhausted. The

Native American monitors will be directed by the project archaeologist. Native American monitors/representatives from the Kumeyaay nation and The Jamul Indian Village of California shall be invited to participate in the monitoring program.

5) During the original cutting of previously undisturbed deposits, the archaeological monitor and Native American representative shall be on site, as determined by the consulting archaeologist, to perform inspections of the excavations. Full- or part-time inspections may be needed depending upon the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features.
6) Isolates and clearly non-significant deposits will be minimally documented in the field so the monitored grading can proceed.
7) In the event that previously unidentified cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground-disturbance operation in the area of discovery to allow for the evaluation of potentially significant cultural resources. The archaeologist shall contact the Lead Agency at the time of discovery. The archaeologist, in consultation with the Lead Agency, shall determine the significance of the discovered resources. The Lead Agency must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources that are discovered and that will be destroyed by grading, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the Lead Agency before being carried out using professional archaeological methods. If any human remains are discovered, all grading at that location must stop and the County of San Diego Coroner's office and Lead Agency shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains.
8) Before construction activities are allowed to resume in the location of any discovered significant cultural deposits, the artifacts shall be recovered and features recorded using professional archaeological methods. The archaeological monitor(s) shall determine the amount of material to be recovered for an adequate artifact sample for analysis.
9) All cultural material collected during the grading monitoring program shall be processed and curated according to the current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility, to be accompanied by payment of the fees necessary for permanent curation.
10) A report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the Lead Agency prior to the issuance of any building permits. The report will include DPR Primary and Archaeological Site Forms.

MM-CUL-2 As specified by California Health and Safety Code, Section 7050.5, if human remains are found on the project site during construction or during archaeological work, the person responsible for the excavation, or his or her authorized representative, shall immediately notify the County of San Diego Coroner's office and the City of Poway Development Services Division. Determination of whether the remains are human shall be conducted on site and in situ (where they are discovered) by a forensic anthropologist, unless the forensic anthropologist and the Native American monitor agree to remove the remains to an off-site location for examinations. No further excavation or disturbance

of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County of San Diego Coroner's office has made the necessary findings as to origin and disposition. A temporary construction exclusion zone may be established surrounding the area of the discovery so that the area would be protected, and consultation and treatment shall occur as prescribed by law or as otherwise recommended by a qualified professional in concurrence with Tribal representatives or other represented entities. In the event that the remains are determined to be of Native American origin, the most likely descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains in accordance with California Public Resources Code, Section 5097.98. The Native American remains shall be kept in situ, or in a secure location in close proximity to where they were found, and the analysis of the remains shall only occur on site and in the presence of a Native American monitor.

4.4.7 Level of Significance After Mitigation

Implementation of **MM-CUL-1** would reduce **Impact CUL-1** and **Impact CUL-3** to a level below significance by setting forth procedures for handling an accidental discovery of prehistoric archaeological resources or tribal cultural resources during site preparation, should they be encountered, including not but limited to, requiring the presence of archeological and Native American monitors during certain project construction activities.

Implementation of **MM-CUL-2** would reduce **Impact CUL-2** to a level less than significant by setting forth procedures for handling human remains as consistent with California Health and Safety Code Section 7050.5.

After mitigation, the proposed project would not represent a significant adverse impact to cultural resources or tribal cultural resources.

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4.5 Energy

This section describes the existing energy conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The analysis is based on the review of existing conditions; technical data; applicable laws, regulations, and guidelines; and the air quality and greenhouse gas technical report prepared by Dudek in January 2020. The Air Quality Report for The Farm in Poway Project is included in this Environmental Impact Report (EIR) as Appendix B.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to Energy focused on the following topics:

- Increased energy usage
- Increased cost of energy

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.5.1 Existing Conditions

Environmental Setting

The environmental setting for the proposed project related to electricity, natural gas, and petroleum—including associated service providers, supply sources, and estimated consumption—is discussed below. In summary, in 2018 (the latest calendar year for which data is uniformly available for all three types of energy sources), California's estimated annual energy use included the following:

- Approximately 284,436 gigawatt hours of electricity (CEC 2019a)
- Approximately 13 billion therms of natural gas (CEC 2019b)
- Approximately 16 billion gallons of gasoline (CARB 2019)

Electricity

Electricity usage in California for different land uses varies substantially by the types of uses in a building, types of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita has remained stable for more than 30 years, and the national average has steadily increased (CEC 2016).

San Diego Gas & Electric (SDG&E) provides electric services to 3.6 million customers through 1.4 million electric meters located in a 4,100-square-mile service area that includes San Diego County and southern Orange County (SDG&E 2020). SDG&E is a subsidiary of Sempra Energy and would provide electricity to the proposed project. According to the California Public Utilities Commission (CPUC), SDG&E customers consumed approximately 19,169 million kilowatt-hours (kWh) of electricity in 2015 (CPUC 2016).

SDG&E receives electric power from a variety of sources. In 2017, 44 percent of SDG&E's power came from eligible renewable energy sources, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources. This is an improvement of 9 percent over the 2015 mix (CPUC 2016, 2020).

Based on recent energy supply and demand projections in California, statewide annual peak electricity demand is projected to grow an average of 890 megawatts per year for the next decade, or 1.4 percent annually, and consumption per capita is expected to remain relatively constant at 7,200 to 7,800 kWh per person (CEC 2016).

In San Diego County, the California Energy Commission (CEC) reported an annual electrical consumption of approximately 6 billion kWh in 2018 for residential use (CEC 2019a).

Natural Gas

The CPUC regulates natural gas utility service for approximately 10.8 million customers who receive natural gas from Pacific Gas & Electric, Southern California Gas (SoCalGas), SDG&E, Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage (CPUC 2020). SDG&E provides natural gas service to San Diego and Orange Counties. SDG&E is a wholesale customer of SoCalGas and currently receives all of its natural gas from the SoCalGas system (CPUC 2020).

The CPUC regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. California gas utilities may soon also begin receiving biogas into their pipeline systems (CPUC 2020).

In 2012, California customers received 35 percent of their natural gas supply from basins located in the Southwest, 16 percent from Canada, 40 percent from the Rocky Mountains, and 9 percent from basins located within California (CPUC 2020). Natural gas from out-of-state production basins is delivered into California through the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California are the Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Southern Trails, and Mojave Pipeline. The North Baja–Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border and delivers it through California into Mexico. The Federal Energy Regulatory Commission regulates the transportation of natural gas on interstate pipelines, and CPUC often participates in Federal Energy Regulatory Commission proceedings to represent the interests of California natural gas consumers (CPUC 2020).

Most of the natural gas transported through interstate pipelines, and some California-produced natural gas, is delivered through the Pacific Gas & Electric and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California's "backbone" natural gas pipeline system). Natural gas on the backbone pipeline system is then delivered into local transmission and distribution pipeline systems or to natural gas storage fields. Some large noncore customers take natural gas directly off the high-pressure backbone pipeline system, and some core customers and other noncore customers take natural gas off the utilities' distribution pipeline systems. CPUC has regulatory jurisdiction over 150,000 miles of utility-owned natural gas pipelines, which transported 82 percent of the natural gas delivered to California's gas consumers in 2012 (CPUC 2020).

Pacific Gas & Electric and SoCalGas own and operate several natural gas storage fields that are located in Northern and Southern California. These storage fields and four independently owned storage utilities—Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage—help meet peak-season natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently (CPUC 2020).

California's regulated utilities do not own any natural gas production facilities. All natural gas sold by these utilities must be purchased from suppliers or marketers. The price of natural gas sold by suppliers and marketers was deregulated by the Federal Energy Regulatory Commission in the mid-1980s and is determined by market forces. However, CPUC decides whether California's utilities have taken reasonable steps to minimize the cost of natural gas purchased on behalf of its core customers (CPUC 2020).

As indicated in the preceding discussion, natural gas is available from a variety of in-state and out-of-state sources, and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available through existing delivery systems, thereby increasing the availability and reliability of resources.

Petroleum

There are more than 35 million registered vehicles in California, and those vehicles consume an estimated 18 billion gallons of fuel each year (CEC 2017). Gasoline and other vehicle fuels are commercially provided commodities and would be available to the proposed project through commercial outlets.

Petroleum currently accounts for approximately 92 percent of California's transportation energy consumption (CEC 2017). However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled (VMT). Market forces have driven the price of petroleum products steadily upward over time, and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

Largely as a result of and in response to these multiple factors, gasoline consumption within the state has declined in recent years, and availability of other alternative fuels and energy sources has increased. The quantity, availability, and reliability of transportation energy resources have increased in recent years, and this trend may likely continue and accelerate (CEC 2017). Increasingly available and diversified transportation energy resources act to promote continuing reliable and affordable means to support vehicular transportation within the state.

Existing Infrastructure

The proposed project is located on the site of a currently vacant and abandoned golf course, and falls within the SDG&E service area.

4.5.2 Relevant Plans, Policies, and Ordinances

Federal, state, and local agencies regulate energy use and consumption through various means and programs. On the federal level, the U.S. Department of Transportation, the U.S. Department of Energy, and the U.S. Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and CEC are two agencies with authority over different aspects of energy. Relevant federal, state, and local energy-related regulations are summarized below.

Federal

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum (EPA 2013). The U.S. Environmental Protection Agency is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as "RFS2" and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the U.S. Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green" jobs.

State

The discussion below focuses primarily on those policies, regulations, and laws that directly pertain to energy-related resources. Refer to Section 4.7, Greenhouse Gas Emissions, of this EIR for a discussion of various policies, regulations, and laws targeted to the reduction of GHG emissions that are expected to achieve co-benefits in the form of reduced demand for energy-related resources and enhanced efficiencies in the consumption of energy-related resources.

Warren-Alquist Act

The California Legislature passed the Warren-Alquist Act in 1974. The Warren-Alquist Act created the CEC, and also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

State of California Energy Action Plan

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided to consumers. The plan also identified policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. In 2005, a second Energy Action Plan was adopted by the CEC and CPUC to reflect various policy changes and actions of the prior two years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an update that examines the state's ongoing actions in the context of global climate change.

Senate Bill 1078 (2002)

Senate Bill (SB) 1078 established the California Renewables Portfolio Standard (RPS) Program, and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20 percent standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.

Senate Bills 107 (2006), X1-2 (2011), 350 (2015), and 100 (2018)

SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20 percent of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) requires all California utilities to generate 33 percent of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20 percent had to come from renewables; by December 31, 2016, 25 percent had to come from renewables; and by December 31, 2020, 33 percent will come from renewables.

SB 350 (2015) requires retail seller and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030, with interim goals of 40 percent by 2024 and 45 percent by 2027.

SB 100 (2018) increased the standards set forth in SB 350 by establishing targets for the total electricity sold to retail customers in California per year be secured from qualifying renewable energy sources on the following schedule: 44 percent by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of the retail sales of electricity to California. This bill requires that the achievement of 100 percent zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Consequently, utility energy generation from non-renewable resources is expected to be reduced based on implementation of the 60 percent RPS in 2030. Therefore, any project's reliance on non-renewable energy sources would also be reduced.

Assembly Bill 1007 (2005)

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG-reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40 percent below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (e.g., gasoline and diesel). As such, the state's GHG emissions-reduction planning framework creates co-benefits for energy-related resources. Additional information on AB 32 and SB 32 is provided in Section 4.7.2 of this EIR.

California Building Standards

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies.

Title 24 also includes Part 11, the California Green Building Standards (CALGreen). The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, as well as schools and hospitals.

In general, single-family residences built to the 2019 Title 24 standards are anticipated to use approximately 7 percent less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2019 standards will use approximately 53 percent less energy than those under the 2016 standards (CEC 2018). Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30 percent less energy than those built to the 2016 standards (CEC 2018).

Integrated Energy Policy Report

The CEC is responsible for preparing integrated energy policy reports that identify emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The CEC's 2015 Integrated Energy Policy Report discusses the state's policy goal to require that new residential construction be designed to achieve zero net energy standards by 2020, and that new non-residential construction be designed to achieve zero net energy standards by 2030 (CEC 2016), which is relevant to this EIR. Refer to Section 4.7 of this EIR for additional information on the state's zero net energy objectives and how the state's achievement of its objectives would serve to beneficially reduce the proposed project's GHG emissions profile and energy consumption.

State Vehicle Standards

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009 through 2012 standards resulted in a reduction in approximately 22 percent of GHG emissions compared to emissions from the 2002 fleet, and the 2013 through 2016 standards resulted in a reduction of approximately 30 percent.

In 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 with requirements for greater numbers of zero-emissions vehicles into a single package of standards called Advanced Clean Cars. By 2025, when the rules would be fully implemented, new automobiles would emit 34 percent fewer global-warming gases and 75 percent fewer smog-forming emissions (CARB 2012).

Although the focus of the state's vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions-reduction mandates. As codified in California Government Code Section 65080, SB 375 requires metropolitan planning organizations (e.g., San Diego Association of Governments) to include a Sustainable Communities Strategy in their regional transportation plan. The main focus of the Sustainable Communities Strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a bigger effort to address other development issues, including transit and VMT, which influence the consumption of petroleum-based fuels.

Local

SDG&E Individual Integrated Resource Plan

SDG&E's Conforming Portfolio identifies a need for approximately 700 gigawatt-hours of incremental renewable power in addition to the assumed increases in energy efficiency and behind-the-meter solar, to meet the 2030 planning target (approximately 4 percent of the total energy in the portfolio) (SDG&E 2020). SDG&E's Conforming Portfolio demonstrates that the utility has reduced its GHG emissions in the early years of the planning period, reflecting its current position in relation to its RPS targets—in 2018, approximately 45 percent of its energy mix came from delivering renewable resources (compared to an RPS requirement of 29 percent), it has aggressively adopted energy storage, and does not utilize coal resources. SDG&E is fully compliant with RPS and long-term contracting requirements. SDG&E continues to procure to meet resource-specific renewable procurement mandates, as required, but does not expect to procure additional resources for RPS compliance purposes until after 2030. SDG&E is forecasted to reach 49 percent renewable energy in 2021, 98 percent of which will be from long-term contracts (SDG&E 2020).

Poway Comprehensive Plan: General Plan

The Poway Comprehensive Plan: General Plan (General Plan) includes the following policy and strategies to limit energy use (City of Poway 1991):

Policy E – Air, Water and Soil Pollution: The City shall work locally and at the regional level to reduce air, water, and soil pollution within Poway.

- **Strategy 2:** Seek to promote a development pattern that reduces daily trips for shopping, school, and recreation.
- **Strategy 3:** Encourage ridesharing, the use of transit and other transportation systems management programs to reduce the number of vehicle miles traveled and traffic congestion.
- **Strategy 5:** Implement plans and programs to phase-in energy conservation improvements.
- **Strategy 6:** Investigate incentives and regulations to reduce emissions from swimming pools, residential and commercial water heating and heaters.

4.5.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to energy are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to energy would occur if the project would:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.5.4 Impacts Analysis

Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Implementation of the proposed project would increase the demand for electricity and natural gas at the project site and gasoline consumption in the region during construction and operation.

Electricity

Construction Use

Temporary electric power for as-necessary lighting and electronic equipment, such as computers, may be needed inside temporary construction trailers. However, the electricity used for such activities would be temporary and would be substantially less than that required for project operation and would have a negligible contribution to the proposed project's overall energy consumption.

Operational Use

The operational phase would require electricity for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, and electronics. These types of uses would be similar to those currently occurring on site in the clubhouse.

California Emissions Estimator Model (CalEEMod) (version 2016.3.2) was used to estimate project emissions from energy uses (see Appendix B for calculations). Default electricity generation rates in CalEEMod were used (based on the proposed land use and climate zone) based on compliance with 2019 Title 24 for their respective land uses. It was estimated that the proposed project would consume approximately 1,305,502 kWh per year. This equates to approximately 0.8 gigawatt-hours per year. In 2018, the total electricity demand for San Diego County was 19,749 gigawatt-hours (CEC 2019a).

As described above, the electricity demand calculation for the proposed project assumes compliance with Title 24 standards for 2019. The proposed project would be required to meet the California Building Energy Efficiency Standards (24 CCR 6), which improve the energy efficiency of residential and non-residential buildings. The Title 24, Part 6, standards are updated every three years.

The proposed project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains voluntary energy measures that are applicable to the proposed project under the CALGreen Code. Prior to project approval, the project applicant would ensure that the proposed project meets Title 24 requirements applicable at that time, as required by state regulations through their plan review process. For these reasons, the electricity consumption of the proposed project would not be inefficient or wasteful, and impacts would be **less than significant**.

Natural Gas

Construction Use

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the "petroleum" subsection. Any minor amounts of natural gas that may be consumed as a result of project construction would be substantially less than that required for project operation and would have a negligible contribution to the proposed project's overall energy consumption.

Operational Use

Natural gas consumption during operation would be required for various purposes, including, but not limited to, building heating and cooling.

Default natural gas generation rates in CalEEMod for the proposed land use and climate zone were used and adjusted based on compliance with 2019 Title 24 (see Appendix B for calculations). According to these estimations, the proposed project would consume approximately 63,275 therms per year. In comparison, the total natural gas demand for San Diego County in 2018 was 482,524,487 therms (CEC 2019b).

Although natural gas consumption would increase due to the implementation of the proposed project, it would be designed to maximize energy performance. The proposed project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains voluntary energy measures that are applicable to the proposed project under the CALGreen Code. Prior to project approval, the project applicant would ensure that the proposed project meets Title 24 requirements applicable at that time, as required by state regulations through their plan review process. For these reasons, the natural gas consumption of the proposed project would not be inefficient or wasteful, and impacts would be **less than significant**.

Petroleum

Construction Use

Petroleum would be consumed throughout construction of the proposed project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities, and haul trucks involved in relocating dirt around the project site would rely on diesel fuel. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed that construction workers would travel to and from the project site in gasoline-powered vehicles.

Heavy-duty construction equipment of various types would be used during construction. CalEEMod was used to estimate construction equipment usage; results are included in Appendix B of this EIR. Based on that analysis, diesel-fueled construction equipment would operate for an estimated 81,372 hours, as summarized in Table 4.5-1.

Table 4.5-1. Hours of Operation for Construction Equipment

Phase	Hours of Equipment Use
Demolition	2,112
Site Preparation	6,720
Grading	19,840
Building Construction	49,640
Paving	2,640
Architectural Coating	420
Total	**81,372**

Source: Appendix B.

Fuel consumption from construction equipment was estimated by converting the total CO_2 emissions from each construction phase to gallons using conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon (The Climate Registry 2019). The estimated diesel fuel use from construction equipment is shown in Table 4.5-2.

Table 4.5-2. Construction Equipment Diesel Demand

Phase	Pieces of Equipment[a]	Equipment CO_2 (MT)[a]	kg CO_2/Gallon[b]	Gallons
Demolition	6	74.80	10.21	7,326.31
Site Preparation	7	200.61	10.21	19,648.79
Grading	8	844.77	10.21	82,739.49
Building Construction	9	846.06	10.21	82,865.87
Paving	6	55.08	10.21	5,394.29
Architectural Coating	1	8.94	10.21	875.26
			Total	**198,850.01**

Sources:
[a] Appendix B.
[b] The Climate Registry 2019.
Notes: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram.

Fuel consumption from worker and vendor trips was estimated by converting the total CO_2 emissions from the construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Worker vehicles are assumed to be gasoline fueled, and vendor/hauling vehicles are assumed to be diesel fueled.

Calculations for total worker, vendor, and hauler fuel consumption are provided in Table 4.5-3, Table 4.5-4, and Table 4.5-5.

Table 4.5-3. Construction Worker Vehicle Gasoline Demand

Phase	Trips	Vehicle CO_2 (MT)[a]	kg CO_2/Gallon[b]	Gallons
Demolition	1,760	6.16	8.78	702.12
Site Preparation	4,800	16.81	8.78	1,914.86

Table 4.5-3. Construction Worker Vehicle Gasoline Demand

Phase	Trips	Vehicle CO_2 (MT)[a]	kg CO_2/Gallon[b]	Gallons
Grading	12,400	43.18	8.78	4,917.49
Building Construction	865,780	2,802.44	8.78	319,184.84
Paving	2,750	9.28	8.78	1,056.85
Architectural Coating	3,500	10.91	8.78	1,242.77
			Total	**329,018.93**

Sources:
[a] Appendix B.
[b] The Climate Registry 2019.
Notes: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram.

Table 4.5-4. Construction Vendor Truck Diesel Demand

Phase	Trips	Vehicle CO_2 (MT)[a]	kg/CO_2/Gallon[b]	Gallons
Demolition	0	0.00	10.21	0.00
Site Preparation	0	0.00	10.21	0.00
Grading	0	0.00	10.21	0.00
Building Construction	331,420	4,204.87	10.21	411,838.80
Paving	0	0.00	10.21	0.00
Architectural Coating	0	0.00	10.21	0.00
			Total	**411,838.80**

Sources:
[a] Appendix B.
[b] The Climate Registry 2019.
Notes: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram.

Table 4.5-5. Construction Haul Truck Diesel Demand

Phase	Trips	Vehicle CO_2 (MT)[a]	kg CO_2/Gallon[b]	Gallons
Demolition	574	21.86	10.21	2,140.89
Site Preparation	0	0.00	10.21	0.00
Grading	63,614	363.41	10.21	35,593.57
Building Construction	0	0.00	10.21	0.00
Paving	0	0.00	10.21	0.00
Architectural Coating	0	0.00	10.21	0.00
			Total	**37,734.46**

Sources:
[a] Appendix B.
[b] The Climate Registry 2019.
Notes: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram.

As shown in Tables 4.5-2 through 4.5-5, the proposed project is estimated to consume 977,442 gallons of petroleum during the construction phase. By comparison, approximately 55 billion gallons of petroleum would be consumed in California over the course of the project's construction phase, based on the California daily petroleum consumption estimate of approximately 52.9 million gallons per day (CEC 2019c). In 2018, the total petroleum consumption within the County of San Diego was 1.6 billion gallons (CARB 2019). The proposed project would also be required to comply with CARB's Airborne Toxics Control Measures, which restrict heavy-duty diesel vehicle idling time to five minutes. Therefore, because petroleum use during construction would be temporary and relatively minimal, and would not be wasteful or inefficient, impacts would be **less than significant**.

Operational Use

The majority of fuel consumption resulting from the project's operational phase would be attributable to employees, visitors, and residents traveling to and from the project site.

Petroleum fuel consumption associated with motor vehicles and delivery trucks traveling to and from the project site during operation is a function of VMT. Linscott, Law & Greenspan prepared the Traffic Impact Analysis for The Farm in Poway in January 2020, which is provided in Appendix J of this EIR. Based on the traffic impact analysis and air quality technical report (Appendix J and Appendix B, respectively), the annual VMT attributable to the proposed project is expected to be 7,332,485 VMT per year after project buildout. Similar to construction worker and vendor trips, fuel consumption for operation was estimated by converting the total CO_2 emissions from each land use type to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The employee and customer vehicles were assumed to be gasoline powered and the vendor trucks were assumed to be diesel.

Calculations for annual fuel consumption are provided in Table 4.5-6. Mobile sources from the proposed project would result in approximately 273,052 gallons of gasoline per year and 19,090 gallons of diesel per year, for a total of 292,142 gallons of petroleum consumed per year beginning in 2025 after project buildout. By comparison, California as a whole consumes approximately 19.3 billion gallons of petroleum per year (CEC 2019b). It is forecasted that in 2025, approximately 1.4 billion gallons of petroleum in San Diego County will be consumed (CARB 2019).

Table 4.5-6. Petroleum Consumption – Operation

Fuel	Vehicle CO2 (MT)[a]	kg CO_2/Gallon[b]	Gallons
Gasoline	2,397.40	8.78	273,052.25
Diesel	194.91	10.21	19,089.86
		Total	**292,142.11**

Sources:
[a] Appendix J and B.
[b] The Climate Registry 2019.
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

Over the lifetime of the project, the fuel efficiency of the vehicles being used by the employees is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the project site during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, as mentioned previously, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and zero-emissions vehicles in California (CARB 2013). Additionally, in response to SB 375, CARB adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8 percent by 2020, and 18 percent by 2035 for light-duty passenger vehicles in the planning area for the San Diego Association of Governments. As such, operation of the proposed project is expected to use decreasing amounts of petroleum over time due to advances in fuel economy.

In summary, although the proposed project would increase petroleum use during operation as a result of employees and customers commuting to the site and vendor trucks, the use would be a small fraction of the statewide and countywide use and, due to efficiency increases, would diminish over time. Given these considerations, petroleum consumption associated with the proposed project would not be inefficient or wasteful and would result in a **less-than-significant impact**.

Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Title 24 of the California Code of Regulations contains energy efficiency standards for residential and non-residential buildings based on a state mandate to reduce California's energy demand. Specifically, Title 24 addresses a number of energy efficiency measures that impact energy used for lighting, water heating, heating, and air conditioning, including the energy impact of the building envelope such as windows, doors, skylights, wall/floor/ceiling assemblies, attics, and roofs.

Part 6 of Title 24 specifically establishes energy efficiency standards for residential and non-residential buildings constructed in the State of California in order to reduce energy demand and consumption. The proposed project would comply with Title 24, Part 6, per state regulations. In accordance with Title 24 Part 6, the proposed project would have: (a) sensor-based lighting controls—for fixtures located near windows, the lighting would be adjusted by taking advantage of available natural light; and, (b) efficient process equipment—improved technology offers significant savings through more efficient processing equipment.

Title 24, Part 11, contains voluntary and mandatory energy measures that are applicable to the proposed project under the CALGreen Code. As discussed under the previous threshold, the proposed project would result in an increased demand for electricity, natural gas, and petroleum. In accordance with Title 24, Part 11, mandatory compliance, the applicant would have: (a) 50 percent of its construction and demolition waste diverted from landfills; (b) mandatory inspections of energy systems to ensure optimal working efficiency; (c) low pollutant-emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards; and, (d) a 20 percent reduction in indoor water use. Compliance with all of these mandatory measures would decrease the consumption of electricity, natural gas, and petroleum.

Because the proposed project would comply with Title 24, Part 6 and Part 11, no conflict with existing energy standards and regulations would occur. Therefore, impacts would be **less than significant**.

4.5.5 Cumulative Impacts

As shown in Section 4.5.4, impacts associated with the proposed project would be less than significant. Therefore, there would be no cumulatively considerable impact.

4.5.6 Mitigation Measures

The proposed project would not result in any significant impacts to energy use; therefore, no mitigation would be required.

4.5.7 Level of Significance After Mitigation

The proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, either during project construction or operation. In addition, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, no mitigation would be required.

4.6 Geology and Soils

This section describes the existing geological conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The analysis is based on the review of existing conditions; applicable laws, regulations, and guidelines; and on the conclusions provided in the Geologic Reconnaissance for the proposed project, prepared by Geocon Inc. in April 2019. The Geologic Reconnaissance is included as Appendix E to this Environmental Impact Report (EIR).

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, no comment letters related to geology and soils were received.

The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.6.1 Existing Conditions

City Overview

Landslides, rock falls, seismic-induced rupture or shaking, earth settlement, and expansive soil conditions are the main geologic hazards in the City (City of Poway 1991). Most of the problems associated with the geologic hazards in the City are due to the vulnerability of several geologic formations found in the City resulting from previous poor land development practices (City of Poway 1991). The geology of Poway can be divided into geologic zones based upon the age and general composition of exposed rocks (City of Poway 1991).

Underlying Geologic Formation

According to the Public Safety Element of the Poway Comprehensive Plan: General Plan (General Plan) (City of Poway 1991), the project site is underlain by three geologic formations: Green Valley Tonalite, San Marcos Gabbro, and Woodson Mountain Granodiorite. Green Valley Tonalite is highly susceptible to weathering and forms low areas with gentle topography. San Marcos Gabbro is rather resistant to weathering; exposures tend to form broad-based, conical-shaped, bold hills with few surface boulders. Woodson Mountain Granodiorite is very resistant to erosion, forming most of the high areas in the City; outcrops tend to be characterized by large rounded boulders and large exfoliated domes (City of Poway 1991).

Soils and Geologic Conditions

The geology underlying the project site consists of surficial soil (artificial fill, alluvium, and colluvium) over Cretaceous-age granitic rock. The surficial soils and geologic formation are discussed below in order of increasing age. The estimated extent of these units is outlined in Appendix E of this EIR. The composition, extent, and approximate thickness of the surficial deposits will need to be determined during a future geotechnical investigation for the proposed project.

Artificial Fill (Qaf)

Artificial fill deposits were observed in the form of embankments created during contour grading for the golf course. It appears that artificial fill was also placed in the area of the clubhouse, pro shop, tennis courts, and the groundskeeper facilities to create level ground for these structures. The artificial fill deposits would require remedial

grading where they are present within the project site. In addition, mulch was observed at the surface (unmapped) and the thickness is unknown. This material would require removal and exportation from the project site.

Alluvium (Qal)

Alluvium is present within the existing drainages on the project site. These areas generally mimic the drainage locations indicated on the original topography maps. It is assumed that remedial grading was not performed for the alluvium during previous grading operations for the golf course. The alluvium would require remedial grading during future development. Alluvium generally exhibits a high to very high expansion potential (Expansion Index higher than 90).

Colluvium (Unmapped)

The bedrock in the vicinity of the project site is mantled with colluvial deposits where relatively gently sloping conditions are present. Remedial grading would be necessary where these soils are present within the project site. The colluvium encountered in the samples were qualified as medium dense to dense, silty/clayey. Colluvium with clayey qualities is generally exhibits a high to very high expansion potential (Expansion Index higher than 90).

Cretaceous-Age Granitic Rock

Cretaceous-age Granitic Rock underlies the project site. This formation exhibits a highly variable weathering profile (Appendix E). It appears that the upper approximately five to 15 feet of granitic rock below the ground surface is rippable in the areas studied, with the exception of where rock outcroppings are present. This unit generally exhibits adequate bearing and slope stability characteristics.

Geologic Hazards

Faulting and Seismicity

According to the Public Safety Element of the City's General Plan, the faults in the City are classified as inactive by the California Department of Conservation, Division of Mines and Geology. However, the potential exists for a major seismic event to occur along one of the major faults and result in local damage (City of Poway 1991). As such, the project site is not located on any known "active," "potentially active," or "inactive" fault traces, as defined by the California Geological Survey (CGS). CGS has included portions of the Rose Canyon Fault zone within an Alquist–Priolo Earthquake Fault Zone. The nearest known active faults are the Newport–Inglewood and Rose Canyon Fault Zones, both located approximately 16 miles west of the site, and are the dominant sources of potential ground motion (Appendix E). Historically, earthquakes between 5 and 6 magnitude intensity have occurred near the Rose Canyon Fault. Studies indicate the maximum credible earthquake would be between 5.8 and 6.2 magnitude, with two repeat intervals of one per 100 years. The maximum credible earthquake would be approximately 7.1 magnitude, with no stated recurrence interval (City of Poway 1991). A maximum probable earthquake on the closest section of the Rose Canyon Fault could cause moderate damage in well-built structures and heavy damage or collapse in poorly built structures.

The severity of the seismic ground shaking depends on the magnitude of the earthquake, the distance of the site from the earthquake epicenter, and soil conditions at the site and in between the Project site and the epicenter. Ground shaking is expected to have the greatest amount of seismic impact on the City; however, the effect of ground shaking depends on its severity and the integrity of the structure (City of Poway 1991).

Liquefaction

Liquefaction typically occurs when a site is located in a zone with seismic activity, on-site soils are cohesionless, groundwater is encountered within 50 feet of the surface, and soil densities are less than about 70 percent of the relative density. If all four criteria are met, a seismic event could result in a rapid increase in pore water pressure from the earthquake-generated ground accelerations. The potential for liquefaction at the project site is considered to be negligible due to the dense formational material encountered on site, remedial grading recommended, and lack of a shallow groundwater condition.

According to the Public Safety Element of the City's General Plan, the potential for widespread liquefaction in the City does not exist due to the structure and particle size mix of the soil types found in the low-lying areas of the City (i.e., sandy loams with clay substrata), which gives the soils a massive structure (City of Poway 1991)

Landslides

According to the Public Safety Element of the City's General Plan, the City has many areas that are highly susceptible to landslides. Landslides occur as a result of a seismic event, gravity, groundwater, and poor geologic conditions. No evidence of ancient landslide deposits was observed during the site reconnaissance or geologic literature review completed for the proposed project (Appendix E).

Expansive Soils

Expansive soils are clay soils that expand in volume with an increase in moisture content. Damage is caused when structures are built on this soil without adequate foundation design (City of Poway 1991). According to the 2016 California Building Code (CBC), Section 1803.5.3 (adopted by the City of Poway), soils meeting all four of the following provisions shall be considered expansive, except that tests to show compliance with Items 1, 2, and 3 shall not be required if the test prescribed in Item 4 is conducted:

1. Plasticity index of 15 or greater, determined in accordance with ASTM D4318 (Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils).
2. More than 10 percent of the soil particles pass a No. 200 sieve (75 micrometers), determined in accordance with ASTM D422 (Standard Test Method for Particle-Size Analysis of Soils).
3. More than 10 percent of the soil particles are less than 5 micrometers in size, determined in accordance with ASTM D422.
4. Expansion index greater than 20, determined in accordance with ASTM D4829 (Standard Test Method for Expansion Index of Soils).

Groundwater

No groundwater or seepage was observed on the property during the field reconnaissance performed for the project site (Appendix E). However, groundwater levels in the constructed ponds and drainage areas can be expected to fluctuate seasonally and could potentially affect grading if the alluvial areas extend into the development footprint. Project grading could potentially encounter wet soils, causing excavation and compaction difficulty, particularly if proposed project construction is planned during winter months.

4.6.2 Relevant Plans, Policies, and Ordinances

Federal

Occupational Safety and Health Administration Regulations

Excavation and trenching are among the most hazardous construction operations. The Occupational Safety and Health Administration (OSHA) Excavation and Trenching Standard (29 CFR 1926.650) covers requirements for excavation and trenching operations. OSHA requires that all excavations in which employees could potentially be exposed to cave-ins be protected by sloping or benching the sides of the excavation, supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area. In California, the California OSHA has responsibility for implementing federal rules relevant to worker safety, including slope protection during construction excavations. California OSHA's requirements are more restrictive and protective than federal OSHA standards.

U.S. Geological Survey Landslide Hazard Program

In fulfillment of the requirements of Public Law 106-113, the U.S. Geological Survey created the Landslide Hazard Program in the mid-1970s. According to the U.S. Geological Survey, the primary objective of the National Landslide Hazards Program is to reduce long-term losses from landslide hazards by improving understanding of the causes of ground failure and suggesting mitigation strategies. The federal government takes the lead role in funding and conducting this research, whereas the reduction of losses due to geologic hazards is primarily a state and local responsibility.

Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act of 2002 was enacted to codify the generally accepted practice of limiting the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers; these researchers must obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers.

State

Alquist–Priolo Earthquake Fault Zoning Act

The Alquist–Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. In accordance with this act, the State Geologist established regulatory zones, called "earthquake fault zones," around the surface traces of active faults, and published maps showing these zones. Earthquake fault zones are designated by the CGS and are delineated along traces of faults where mapping demonstrates surface fault rupture has occurred within the past 11,000 years. Construction within these zones cannot be permitted until a geologic exploration has been conducted to prove that a building planned for human occupancy would not be constructed across an active fault. These types of site evaluations address the precise location and recency of rupture along traces of the faults, and are typically based on observations made in trenches excavated across fault traces.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (California Public Resources Code, Chapter 7.8, Section 2690 et seq.) directs the CGS to protect the public from earthquake-induced liquefaction and landslide hazards (these hazards are distinct from fault surface rupture hazard regulated by the Alquist–Priolo Act). This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones (i.e., zones of required investigation). Before a development permit may be granted for a site within a seismic hazard zone, a geotechnical exploration of the site must be conducted and appropriate mitigation measures incorporated into the design of proposed projects. Evaluation and mitigation of potential risks from seismic hazards within zones of required investigation must be conducted in accordance with the Guidelines for Evaluating and Mitigating Seismic Hazards in California, adopted by the State Mining and Geology Board on March 13, 1997, and updated in 2008 (CGS 2008).

As of 2012, Seismic Hazard Zone Maps have been prepared for portions of populated areas of Southern California and the San Francisco Bay Area; however, no seismic hazard zones have yet been delineated for the project site. As a result, the provisions of the Seismic Hazards Mapping Act would not apply to the proposed project.

California Building Code

The California Building Code (CBC) (24 CCR Part 2) is administered by the California Building Standards Commission, which is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. The CBC is based on the International Building Code, published by the International Code Conference. The CBC contains California amendments based on the American Society of Civil Engineers Minimum Design Standards 7-05, which provides requirements for general structural design and includes means for determining earthquake loads and other loads (such as wind loads) for inclusion into building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

Paleontological Resources

Paleontological resources are afforded consideration under the California Environmental Quality Act (CEQA). Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) includes the following as part of its Environmental Checklist: “Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?” Section 5097.5 of the California Public Resources Code specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, California Penal Code Section 622.5 sets the penalties for damage to or removal of paleontological resources.

Local

San Diego County Special Studies Zones

The Alquist–Priolo Act provides that a city or county may establish more restrictive policies than those within the Alquist–Priolo Act, if desired. The County of San Diego (County) established Special Study Zones that include late-Quaternary faults mapped by CGS. Late-Quaternary faults (movement during the past 700,000 years) were mapped

for the County based on geomorphic evidence similar to that of Holocene faults except that tectonic features are less distinct. As indicated by CGS, these faults may be younger, but the lack of younger overlying deposits precludes more accurate age classification. Traces of faults within "Special Study Zones" are treated by the County as active unless a fault investigation can prove otherwise. Before any construction is allowed, a geologic study must be conducted to determine if any active fault lines are located on or within the vicinity of a project site. For areas where active faulting is identified, the County's Fault Displacement Area regulations regulate new development in areas subject to potential loss of life and property from earthquake fault displacement in order to mitigate such losses (County of San Diego 2007). The proposed project would not be located in a County Special Study Fault Zone or a fault rupture hazard zone as identified by the Alquist–Priolo Act.

On-Site Wastewater Treatment System Ordinance

Chapter 3, Division 8, of Title 6 of the San Diego County Code, On-Site Wastewater Treatment System Ordinance (County of San Diego 2011), establishes the requirements for on-site wastewater treatment systems in the County. The purpose of this ordinance is to implement state laws and regulations associated with waste discharge requirements (State Water Resources Control Board and the California Regional Water Quality Control Board for the San Diego Region), and to implement additional standards for septic systems and graywater systems that are necessary to protect the health and safety of the community. It also makes it unlawful for any person to cause, suffer, or permit the disposal of sewage, human excrement, or other liquid wastes in any place or manner except through and by means of an approved plumbing and drainage system and an approved sewage disposal system. If no public sanitary sewer system is available, the ordinance allows for installation of on-site wastewater treatment systems, provided that the requirements and standards of the ordinance are complied with and a permit issued by the Department of Environmental Health is obtained. Standards and requirements include soil percolation tests to determine soil suitability, the selection of a treatment system appropriate for site conditions, and specific setback requirements from lakes, streams, ponds, slopes, and other utilities and structures. Chapter 6, Division 8, of Title 6 of the County Code pertains to Septic Tank and Cesspool Cleaners, which establishes processes, fees, and requirements for the examination, cleaning, and collection of sewage from septic tanks and cesspools. The proposed project would not include any septic or on-site wastewater systems. As such, this ordinance does not apply to the proposed project.

City of Poway Municipal Code

Chapter 16, Division 3 – Excavation and Grading

Chapter 16, Division 3 of the City of Poway Municipal Code (City of Poway 2019), Excavation and Grading, establishes the requirement to obtain a grading permit prior to grading operations. The Grading Ordinance requires the submittal of grading plans or improvement plans for review by the City Engineer prior to issuance of a grading permit. The Grading Ordinance contains design standards and performance requirements that must be met to avoid—or reduce to an acceptable level—the potential for slope instabilities, expansive soils, excessive erosion, and sedimentation to adversely affect a proposed development. The ordinance prohibits grading permits upon a significant portion of natural or existing grade that exceeds a slope of 45 percent unless such grading is required to mitigate a geologic hazard to adjacent grade, or is required for the construction of necessary water or sewer mains, storm drains, or fire roads, all as approved and determined necessary by the City Engineer.

The Grading Ordinance also establishes the requirements for expansive soil requirements for cuts and fills; minimum setback requirements for buildings from cut or fill slopes; and reporting requirements, including a soil engineer's report and a final engineering geology report by an engineering geologist that includes specific

approval of the grading as affected by geological factors. Upon review of grading plans, the City Official has the authority to approve, attach conditions of approval, or deny the permit application.

Chapter 15.04 – Building Code

Chapter 15.04 of the City's Municipal Code (City of Poway 2019) outlines the City Building Code, which prescribes regulations for the erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area, and maintenance of buildings and structures in the City. The City Building Code adopts the 2016 CBC.

4.6.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to geology and soils are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to geology and soils would occur if the project would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
   a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of as known fault. Refer to Division of Mines and Geology Special Publication 42.
   b. Strong seismic ground shaking.
   c. Seismic-related ground failure, including liquefaction.
   d. Landslides.
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

4.6.4 Impacts Analysis

Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of as known fault. Refer to Division of Mines and Geology Special Publication 42.

As stated under Section 4.6.1, Existing Conditions, the project site is not located on any known "active," "potentially active," or "inactive" fault traces as defined by CGS. CGS considers a fault seismically active

when evidence suggests seismic activity within roughly the last 11,000 years. According to the results of the Geologic Reconnaissance (Appendix E), seven known active faults are located within a search radius of 50 miles from the project site. The Newport–Inglewood and Rose Canyon Fault Zones, located approximately 16 miles west of the site, are the closest known active faults. Table 4.6-1 lists the estimated maximum earthquake magnitudes and peak ground accelerations for the most dominant faults for the site location calculated for Site Class C, as defined by Table 1613.3.2 of the 2016 CBC.

Table 4.6-1. Deterministic Seismic Site Parameters

Fault Name	Distance from Project Site (miles)	Maximum Earthquake Magnitude (Mw)	Peak Ground Acceleration		
			Source 1	*Source 2*	*Source 3*
Newport–Inglewood	16	7.5	0.19	0.15	0.18
Rose Canyon	16	6.9	0.15	0.13	0.13
Elsinore	21	7.85	0.18	0.13	0.17
Earthquake Valley	29	6.8	0.09	0.07	0.06
Coronado Banks	30	7.4	0.12	0.08	0.09
Palos Verdes	30	7.7	0.13	0.09	0.11
San Jacinto	42	7.88	0.11	0.08	0.09

Source: Appendix E.
Notes: Source 1 = Boore-Atkinson (2008); Source 2 = Campbell-Bozorgnia (2008); Source 3 = Chiou-Youngs (2008).

A site-specific probabilistic seismic hazard analysis was completed in preparation of the Geologic Reconnaissance (Appendix E) prepared for the proposed project. The site-specific probabilistic seismic hazard analysis calculated the expected accelerations from considered earthquake sources using a program that calculates the total average annual expected number of occurrences of site acceleration greater than a specified value. Given the distance of the nearest fault and magnitude of past seismic activity, the proposed project would not expose people or structures to potential substantial adverse effects associated with the rupture of a known earthquake fault. Furthermore, all proposed residences and structures on site would be designed and constructed in accordance with the CBC guidelines currently adopted by the City. Therefore, impacts related to fault rupture would be **less than significant**.

b. Strong seismic ground shaking?

As stated above, the Newport–Inglewood and Rose Canyon Fault Zones, located approximately 16 miles west of the project site, are the closest known active faults. A site-specific probabilistic seismic hazard analysis was performed in preparation of the Geologic Reconnaissance for the proposed project (Appendix E). The results are summarized in Table 4.6-2.

Table 4.6-2. Seismic Hazard Probability

Probability of Exceedance	Peak Ground Acceleration		
	Source 1	*Source 2*	*Source 3*
2% in a 50-year period	0.37	0.36	0.41
5% in a 50-year period	0.28	0.27	0.29
10% in a 50-year period	0.22	0.21	0.21

Source: Appendix E.
Notes: Source 1 = Boore-Atkinson (2008); Source 2 = Campbell-Bozorgnia (2008); Source 3 = Chiou-Youngs (2008).

While listing peak accelerations is useful for comparison of potential effects of fault activity in a region, other considerations are important in seismic design, including the frequency and duration of motion and the soil conditions underlying the site. The project site is likely to be subjected to strong ground motion from seismic activity similar to that of the rest of the County and Southern California, due to the seismic activity of the region as a whole. However, compliance with the CBC and seismic design criteria recommendations would reduce exposure of people or structures to potential substantial adverse effects from seismic ground shaking. Therefore, impacts would be **less than significant.**

c. Seismic-related ground failure, including liquefaction?

Liquefaction typically occurs when a site is located in a zone with seismic activity, the on-site soils are cohesionless, groundwater is encountered within 50 feet of the surface, and soil relative densities are less than about 70 percent. If all four of the previous criteria are met, a seismic event could result in a rapid pore-water pressure increase from the earthquake-generated ground accelerations. Seismically induced settlement may occur whether the potential for liquefaction exists or not. The surficial soils and geologic formations underlying the project site include artificial fill, alluvium, colluvium, and cretaceous granite rock. No groundwater or seepage was observed on the project site during the field reconnaissance (Appendix E). As concluded in the Geologic Reconnaissance, the potential for liquefaction at the site is considered to be negligible due to the dense formational material encountered and lack of a shallow groundwater condition (Appendix E). However groundwater depth is currently unknown and would need to be further studied in an additional geologic investigation. Additionally, it was recommended in the Geologic Reconnaissance (Appendix E) that remedial grading take place to fully mitigate for any potentially liquefiable soils, if they exist on site. As such, impacts associated with seismic-related ground failure, including liquefaction, would conservatively be **potentially significant** (**Impact GEO-1**) until an additional geologic investigation is conducted and remedial grading is competed.

d. Landslides?

The risk associated with ground rupture hazards, such as landslides, is very low due to the absence of active faults within the project site. As discussed in Section 4.6.1, no evidence of ancient landslide deposits were observed during the site reconnaissance or geologic literature review completed for the proposed project (Appendix E). Additionally, the proposed project would be designed in accordance with the 2016 CBC, which would minimize potential risks associated with landslides. Therefore, impacts would be **less than significant**.

Would the project result in substantial soil erosion or the loss of topsoil?

The demolition and construction phases of the proposed project would require grading, excavation, and the import and export of soil from the project site, and therefore would increase the potential for erosion. Soil erosion and loss of topsoil could occur through runoff, wind transport, and vehicle movement. Grading for the site is balanced at 508,900 cubic yards of cut and fill to avoid export or import of dirt. Cut and fill slopes are designed at 2:1 minimum. The site is underlain by surficial units that include artificial fill, alluvium, colluvium, and cretaceous-age granite rock. The geologic formations underlying the City vary from highly susceptible to very resistant to erosion. However, the geologic formations are well beneath the ground surface of the project site (City of Poway 1991). The artificial fill, alluvium, and colluvium deposits are presently unsuitable to support fill and/or structural loads and would require remedial grading where improvements are planned. All project site slopes would be

landscaped with drought-tolerant vegetation having variable root depths and requiring minimal landscape irrigation, and all slopes would be drained and properly maintained to reduce erosion. Additionally, the proposed project would not be approved or built without adequately demonstrating to the City compliance with the CBC and applicable geologic hazards regulations. However, without remedial grading where improvements are planned, the proposed project could result in a **potentially significant** impact (**Impact GEO-2**) associated with soil erosion and mitigation would be required.

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

As determined in the Public Safety Element of the City's General Plan (City of Poway 1991), the project site is not located in an area subject to landslide, lateral spreading, subsidence, liquefaction, or collapse. As previously stated, the project site is underlain by surficial units that include artificial fill, alluvial, and colluvial deposits. The site was previously developed and disturbed, and there are no known cases of landslide, lateral spreading, subsidence, liquefaction, or collapse occurring on site.

As previously discussed, the proposed project includes the implementation of the recommendations included in the Geologic Reconnaissance, which would further minimize any potential for on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Additionally, the proposed project would not be approved or built without adequately demonstrating compliance with the CBC and applicable geologic hazards regulations. Therefore, impacts associated with placement on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed project, would be **less than significant**.

Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils contain minerals, such as clay, that are capable of absorbing water and expanding, and losing water and shrinking. The repetitive stress of a swell/shrink cycle on a foundation can cause severe damage to buildings and structures. As discussed in Section 4.6.1, the underlying alluvium and colluvium encountered on the project site during reconnaissance are considered to be "expansive" (expansion index of greater than 20) as defined by 2016 CBC Section 1803.5.3. Thus, the proposed project could create substantial direct or indirect risks to life or property due to the expansive soils on site. The proposed project would be constructed in conformance with the 2016 CBC, which would minimize impacts associated with expansive soils. However, impacts associated with expansive soils would still be potentially significant (**Impact GEO-3**) and mitigation would be required.

Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed project would not involve the use of septic tanks or alternative wastewater disposal; therefore, **no impact** related to soils incapable of supporting these uses would occur.

Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Most paleontological resources are not exposed at the surface, and fossils are usually found during earthmoving activities when geologic features are exposed. The project site is almost entirely developed, so the likelihood of encountering subsurface paleontological resources is greatest on sites that have been minimally excavated in the

past. However, due to the depth of excavation during grading activities, there is potential to encounter previously undiscovered paleontological resources. Since the exact depths of such resources are unknown, in the event that unexpected intact paleontological resources are unearthed during ground-disturbing activities, impacts would be **potentially significant** (**Impact GEO-4**).

The proposed project's impacts to geological resources are listed as follows:

Impact GEO-1 The proposed project could result in potentially significant impacts associated with seismic-related ground failure, including liquefaction, due to the unknown depth of groundwater on site and the potential for liquefiable soils.

Impact GEO-2 The proposed project could result in a potentially significant impact associated with soil erosion because on-site artificial fill, alluvium, and colluvium deposits are presently unsuitable to support fill and/or structural loads where improvements are planned.

Impact GEO-3 The proposed project could result in a potentially significant impact relative to the location of expansive soils on site that may result in substantial direct or indirect risks to life or property.

Impact GEO-4 If unexpected intact paleontological resources are unearthed during ground-disturbing activities, then the proposed project could result in significant impacts to unique paleontological resources or sites, or unique geologic features.

4.6.5 Cumulative Impacts

All of Southern California lies within a seismically active region with an extremely diverse range of geologic and soil conditions that can vary substantially within short distances. However, impacts from geologic and soil conditions are also site-specific and would only have potential to combine with impacts of the proposed project if they occurred in the same general location, or on similar soils and topographies. Thus, the geographic extent of the cumulative study area for potential impacts to people and structures related to geologic and seismic hazards is restricted to the project site and the area immediately surrounding the site (see Figure 3-11, Cumulative Projects, and Table 3-2, Cumulative Projects).

Fault Rupture

It is unlikely that past, existing, and/or future projects could contribute to the cumulative effects of geology and soils creating the acceleration of erosion, slope failures, fault or ground rupture, and/or earthquake-induced ground failure. These types of conditions would be limited to the areas within and adjacent to the boundaries of individual projects or structural components of the project. In order for impacts to be cumulatively considerable, these conditions would have to occur at the same time and in the same location as the proposed project. Therefore, potential seismic impacts (ground shaking, earthquake-induced ground failure, and fault rupture) as a result of local and regional faults, as well as soils that underlie individual projects, comprise an impact to the geologic environment that would not be cumulatively considerable. Additionally, each individual project would be designed in accordance with seismic design criteria as required by the CBC and with other specific design criteria from state and local building and grading regulations, and would be subject to CEQA, including analysis of and mitigation for geologic and soil impacts on an individual basis. Therefore, the proposed project **would not contribute, even incrementally, to potentially cumulative impacts** related to fault rupture.

Ground Shaking, Liquefaction, Landslides, Expansive Soils, and Adequate Soils for Septic Systems or Other On-Site Wastewater Systems

Potential geologic and soils impacts associated with the proposed project are restricted to potential facility damage from earthquake-related ground shaking, liquefaction, landslides, expansive soils, and general soil suitability. The County Department of Planning and Development Services reviews applications for building permits for compliance with the CBC, local amendments to the CBC, and County Zoning Ordinance Section 87.209. Grading plans would also be reviewed for compliance with state and local standards.

The proposed project would be designed in accordance with the seismic design requirements of the CBC, which contains universal standards for seismically sound site preparation and grading practices, foundations design, and guidelines for the appropriate selection and use of construction materials. In accordance with the CBC, a more comprehensive Geology and Soils Report would be conducted that further evaluates the soils underlying the project site to gauge the potential for liquefaction and soil strength during the maximum considered earthquake geometric mean peak ground acceleration. Once the evaluation is complete, if needed, the design requirements or the construction materials of the proposed project would revised as recommended. Therefore, since no other projects identified on the list of cumulative projects would occur on the project site, impacts associated with liquefaction **would not be cumulatively considerable.**

The proposed project does not include any septic or on-site wastewater systems. As such, the proposed project would **not contribute to a cumulative impact** related to adequate soils for septic tanks or on-site wastewater systems. In all cases, the impacts were determined to be less than significant because the existing regulatory framework controlling the design and construction of structures in California, and actions required to obtain a grading and/or development permits at the local level, are sufficient to avoid or substantially reduce the potential impacts. All other projects listed in Table 3-2, Cumulative Projects, would be required to comply with the same or similar set of laws, regulations, and ordinances.

Therefore, because all cumulative projects would be designed in accordance with seismic design criteria as required by the CBC and with other specific design criteria from state and local building and grading regulations, impacts would be **less than cumulatively considerable** as related to ground shaking, liquefaction, landslides, expansive soils, and adequate soils for septic systems.

Paleontological Resources

Cumulative projects located in the region would have the potential to result in a cumulative impact associated with paleontological resources from extensive grading, excavation, or other ground-disturbing activities. Cumulative projects that require significant excavation, such as regional energy and utility projects or the construction of new roadways, would result in adverse impacts to paleontological resources. Additionally, if a cumulative project that requires excavation or grading is located in an area of high or moderate sensitivity, this would result in an increased potential for an adverse impact to a paleontological resources to occur. Cumulative projects would be regulated by state and local regulations, including CEQA. However, the loss of paleontological resources on a regional level may not be adequately mitigated through methods specified in these regulations. Therefore, the cumulative destruction of significant paleontological resources from planned construction and development within the region would be cumulatively significant. Additionally, past projects involving development and construction have already impacted paleontological resources within the region.

As discussed in Section 4.6.4, ground-disturbing activities associated with the proposed project could have a significant impact on previously undiscovered paleontological resources. Without appropriate mitigation, the

proposed project in combination with cumulative projects occurring in areas containing geologic formations with high and moderate sensitivity for previously undiscovered paleontological resources, would have the potential to result in cumulative impacts to paleontological resources; however, implementation of standard mitigation measures and adherence to applicable state and local regulations would prevent a cumulative loss of paleontological resources. Therefore, impacts would be **less than cumulatively considerable**.

4.6.6 Mitigation Measures

MM-GEO-1 The Geologic Reconnaissance (Appendix E) includes the following recommendations, which shall be incorporated as mitigation measures to minimize soil erosion or the loss of topsoil, and potential risks associated with liquefaction:

1) Prior to issuance of a grading permit, an additional geotechnical study shall be completed that includes a subsurface investigation to evaluate the underlying geologic conditions on the property and to provide specific geotechnical recommendations. This study shall include evaluation of surficial deposits, and a rippability analysis of the granitic rock in areas of planned development.

2) The site is underlain by surficial units that include artificial fill, alluvial, and colluvial deposits. These deposits shall require remedial grading in the form of removal and compaction where improvements are planned.

3) Cut slopes shall be observed by an engineering geologist during grading to verify that the soil and geologic conditions do not differ significantly from those anticipated. Additional recommendations will be provided in the event that adverse conditions are encountered, such as but not limited to, scaling of loose rock fragments from proposed cut slopes.

MM-GEO-2 The Geological Reconnaissance (Appendix E) includes the following recommendations, which shall be incorporated as mitigation measures to minimize potential risks from expansive soil:

1) Samples of soil materials to be used for fill shall be tested in the laboratory to determine the maximum density, optimum moisture content, and, where appropriate, shear strength, expansion, and gradation characteristics of the soil.

2) Where practical, soils having an Expansion Index greater than 50 should be placed at least 3 feet below finish pad grade and should be compacted at a moisture content generally 2 to 4 percent greater than the optimum moisture content for the material.

MM-GEO-3 Prior to commencement of project construction, a qualified paleontologist shall be retained to attend the project pre-construction meeting and discuss proposed grading plans with the project contractor(s). If the qualified paleontologist determines that proposed grading/excavation activities would likely affect previously undisturbed areas of Pleistocene-age alluvial deposits as a result of cuts into native soils, then monitoring shall be conducted as outlined below.

1) A qualified paleontologist or a paleontological monitor under the direction and supervision of a qualified paleontologist, shall be on site during original cutting of Pleistocene-age alluvial deposits. A paleontological monitor is defined as an individual

who has at least one year of experience in field identification and collection of fossil materials, and who is working under the direction of a qualified paleontologist. Monitoring of the noted geologic unit shall be conducted at least half-time at the beginning of excavation, and may be either increased or decreased thereafter depending upon initial results (per direction of a qualified paleontologist).

a) Qualified Paleontologist: The project paleontologist is a person who has a Ph.D. or M.S. or equivalent in paleontology or closely related field (e.g., sedimentary or stratigraphic geology, evolutionary biology); has a demonstrated knowledge of Southern California paleontology and geology; and has documented experience performing professional paleontological procedures and techniques.

b) Qualified Paleontological Monitor: A paleontological monitor is defined as an individual with at least one year of experience in field identification and collecting of fossil materials.

2) Monitoring of the noted geologic unit shall be conducted at least half-time at the beginning of the excavation, and may be either increased or decreased thereafter by the qualified paleontologist depending upon initial results of monitoring.

3) In the event that well-preserved fossils are discovered, a qualified paleontologist shall have the authority to temporarily halt or redirect construction activities in the discovery area to allow recovery in a timely manner (typically on the order of one hour to two days). All collected fossil remains shall be cleaned, sorted, cataloged and deposited in an appropriate scientific institution (such as the San Diego Natural History Museum) at the applicant's expense.

4) A report (with a map showing fossil site locations) summarizing the results, analyses, and conclusions of the above-described monitoring/recovery program shall be submitted to the City of Poway within three months of terminating monitoring activities.

4.6.7 Level of Significance After Mitigation

Implementation of the recommendations included in the Geological Reconnaissance (Appendix E) and incorporated herein as mitigation measure **MM-GEO-1** would reduce **Impact GEO-1** and **Impact GEO-2** to **less-than-significant** levels. **MM-GEO-2** would reduce **Impact GEO-3** to **less-than-significant** levels. Compliance with **MM-GEO-1** would ensure that no significant impacts would result from soil erosion or liquefiable soils. Compliance with **MM-GEO-2** would ensure that no significant impacts would result from expansive soils on site.

Implementation of **MM-GEO-3** would reduce **Impact GEO-4** to a **less-than-significant** level by requiring a qualified paleontologist be retained prior to construction commencing. If the qualified paleontologist determines that proposed grading/excavation activities would likely affect previously undisturbed areas of Pleistocene-age alluvial deposits, then monitoring shall be conducted as outlined in **MM-GEO-3**.

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, or landslides. 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 project, and would not involve the use of septic tanks or alternative wastewater disposal. Site design measures would be used to minimize geology and soil impacts. Through site design measures discussed in this analysis and outlined in Appendix E, as well as compliance with CBC regulations, impacts associated with geology and soils would be **less than significant**.

4.7 Greenhouse Gas Emissions

This section describes the existing greenhouse gas conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The analysis is based on the review of existing conditions; technical data; applicable laws, regulations, and guidelines; and the air quality and greenhouse gas technical report prepared by Dudek in January 2020. The Air Quality and Greenhouse Gas Emissions Analysis Technical Report for The Farm in Poway is included in this Environmental Impact Report (EIR) as Appendix B.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to greenhouse gas (GHG) emissions focused on the following topics:

- Vehicle-related emissions

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.7.1 Existing Conditions

Climate Change Overview

Climate change refers to any significant change in measures of climate—such as temperature, precipitation, or wind patterns—lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the Sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-20th century and is the most significant driver of observed climate change (EPA 2017; IPCC 2013). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC

2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system (as discussed further in Section 3.3.2, Potential Effects of Climate Change, in Appendix B).

Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. GHGs include, but are not limited to, CO_2, CH_4, nitrous oxide (N_2O), O_3, water vapor, hydrofluorocarbons (HFCs), hydrochlorofluorocarbons (HCFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).[1] Some GHGs—such as CO_2, CH_4, and N_2O—occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases (e.g., HFCs, HCFCs, PFCs, and SF_6), which are associated with certain industrial products and processes. A summary of the most common GHGs and their sources is included in the following text.[2] Also included is a discussion of other climate-forcing substances.

Carbon Dioxide. CO_2 is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO_2 include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO_2 are from the combustion of fuels (e.g., coal, oil, natural gas, and wood) and changes in land use.

Methane. CH_4 is produced through both natural and human activities. CH_4 is a flammable gas and is the main component of natural gas. CH_4 is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide. N_2O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N_2O. Sources of N_2O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers; manure management; industrial processes, such as in nitric acid production, nylon production, and fossil-fuel-fired power plants; vehicle emissions; and using N_2O as a propellant (such as in rockets, race cars, and aerosol sprays).

Fluorinated Gases. Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric O_3-depleting substances (e.g., chlorofluorocarbons, HCFCs, and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to O_3-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as byproducts of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, along with HFCs, to O_3-depleting substances. The two

[1] California Health and Safety Code 38505 identifies seven GHGs that CARB is responsible for monitoring and regulating to reduce emissions: CO_2, CH_4, N_2O, SF_6, HFCs, PFCs, and nitrogen trifluoride.

[2] The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change Second Assessment Report (IPCC 1995), IPCC Fourth Assessment Report (2007), CARB's Glossary of Terms Used in GHG Inventories (CARB 2018), and the EPA's Glossary of Climate Change Terms (EPA 2016).

main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.

- **Sulfur Hexafluoride:** SF_6 is a colorless gas that is soluble in alcohol and ether and slightly soluble in water. SF_6 is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** Nitrogen trifluoride is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

Chlorofluorocarbons. Chlorofluorocarbons are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. Chlorofluorocarbons are chemically unreactive in the lower atmosphere (troposphere), and the production of chlorofluorocarbons was prohibited in 1987 due to the chemical destruction of stratospheric O_3.

Hydrochlorofluorocarbons. HCFCs are a large group of compounds with a structure very close to that of chlorofluorocarbons—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of chlorofluorocarbons for some applications; however, their use in general is being phased out.

Black Carbon. Black carbon is a component of fine particulate matter ($PM_{2.5}$), which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is short lived and varies spatially, which makes it difficult to quantify its global warming potential (GWP). DPM emissions are a major source of black carbon and are TACs that have been regulated and controlled in California for several decades to protect public health. In relation to declining DPM from CARB's regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have reduced by 70 percent between 1990 and 2010, with 95 percent control expected by 2020 (CARB 2014a).

Water Vapor. The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

Ozone. Tropospheric O_3, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric O_3, which is created by the interaction between solar ultraviolet radiation and molecular oxygen, plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O_3, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

Aerosols. Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2016). The Intergovernmental Panel on Climate Change (IPCC) developed the GWP concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of one kilogram of a trace substance relative to that of one kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons (MT) of carbon dioxide equivalent (CO_2e).

The current version of CalEEMod (Version 2016.3.2) assumes that the GWP for CH_4 is 25 (so emissions of one MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the IPCC Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the proposed project.

4.7.2 Relevant Plans, Policies, and Ordinances

Federal

Massachusetts v. U.S. Environmental Protection Agency

In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the U.S. Environmental Protection Agency (EPA) administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the CAA:

- The administrator found that elevated concentrations of GHGs—CO2, CH4, N2O, HFCs, PFCs, and SF6—in the atmosphere threaten the public health and welfare of current and future generations. This is the "endangerment finding."
- The administrator further found the combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the CAA.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions (EPA 2007):

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards

In response to the *Massachusetts v. EPA* ruling, the Bush Administration issued Executive Order (EO) 13432 in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011. In 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 through 2016 (75 FR 25324–25728).

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards projected to achieve 163 grams/mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021 (77 FR 62624–63200), and NHTSA intends to set standards for model years 2022 through 2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014 through 2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by six percent to 23 percent over the 2010 baselines (76 FR 57106–57513).

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types of sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion MT and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

The Current Administration

President Trump and the EPA have stated their intent to halt various federal regulatory activities to reduce GHG emission. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.

State

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes executive orders, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

State Climate Change Targets

Executive Order S-3-05

EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

Assembly Bill 32 and CARB's Climate Change Scoping Plan

In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, CARB is responsible for and is recognized as having the expertise to carry out and develop the programs and requirements necessary to achieve the GHG emissions reduction mandate of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions from specified sources. This program is used to monitor and enforce compliance with established standards. CARB also is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 million metric tons [MMT] CO_2e). CARB's adoption of this limit is in accordance with Health and Safety Code, Section 38550.

Further, in 2008, CARB adopted the Climate Change Scoping Plan: A Framework for Change (Scoping Plan) in accordance with Health and Safety Code, Section 38561. The Scoping Plan establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020 (CARB 2008). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction features by both entities,

identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. The key elements of the Scoping Plan include the following (CARB 2008):

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a statewide renewable energy mix of 33 percent.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions.
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard.
- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In the Scoping Plan, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 29 percent from the otherwise projected 2020 emissions level (i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations [referred to as "business-as-usual"]). For purposes of calculating this percent reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document (Final Supplement), CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG-reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 22 percent (down from 29 percent) from the business-as-usual conditions. When the 2020 emissions level projection was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009 through 2016) and the Renewables Portfolio Standard (RPS) (12 percent to 20 percent), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16 percent (down from 29 percent) from the business-as-usual conditions.

In 2014, CARB adopted the First Update to the Climate Change Scoping Plan: Building on the Framework (First Update). The stated purpose of the First Update is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050" (CARB 2014b). The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

In conjunction with the First Update, CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that will be needed to meet the state's more expansive emission reduction needs by 2050." Those six areas are energy, transportation (e.g., vehicles/equipment, sustainable communities, housing, fuels, infrastructure), agriculture, water, waste management, and natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of EO S-3-05's 2050 reduction goal (CARB 2014b).

Based on CARB's research efforts presented in the First Update, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050." Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies (CARB 2014b).

As part of the First Update, CARB recalculated the state's 1990 emissions level using more recent GWPs identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT CO_2e) and the revised 2020 emissions level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15 percent (instead of 29 percent or 16 percent) from the business-as-usual conditions (CARB 2014b).

On January 20, 2017, CARB released The 2017 Climate Change Scoping Plan Update (Second Update) for public review and comment (CARB 2017). This update proposes CARB's strategy for achieving the state's 2030 GHG target as established in SB 32 (discussed below), including continuing the Cap-and-Trade Program through 2030. The Second Update incorporates approaches to cutting short-lived climate pollutants (SLCPs) under the Short-Lived Climate Pollutant Reduction Strategy (a planning document adopted by CARB in March 2017), and acknowledges the need for reducing emissions in agriculture and highlights the work underway to ensure that California's natural and working lands increasingly sequester carbon. During development of the Second Update, CARB held a number of public workshops in the Natural and Working Lands, Agriculture, Energy, and Transportation sectors to inform development of the 2030 Scoping Plan Update (CARB 2017). When discussing project-level GHG emissions-reduction actions and thresholds, the Second Update states, "Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA" (CARB 2017). The Second Update was approved by CARB's Governing Board on December 14, 2017.

EO B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80 percent below 1990 levels by 2050, as set forth in EO S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO_2e. The EO also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

SB 32 and AB 197

SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction targets; make changes to CARB's membership and increase legislative oversight of CARB's climate change-based activities; and expand dissemination of GHG and other air-quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of

the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also adds two members of the Legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually through its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and requires CARB to identify specific information for GHG emissions-reduction measures when updating the Scoping Plan.

SB 605 and SB 1383

SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of SLCPs in the state; SB 1383 (2016) requires CARB to approve and implement the Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy). SB 1383 also establishes specific targets for the reduction of SLCPs (40 percent below 2013 levels by 2030 for CH_4 and HFCs, and 50 percent below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its SLCP Reduction Strategy in March 2017, which establishes a framework for the statewide reduction of emissions of black carbon, CH_4, and fluorinated gases.

EO B-55-18

EO B-55-18 (September 2018) establishes a new statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." This executive order directs CARB to "work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal."

Building Energy

Title 24, Part 6 of the California Code of Regulations

Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically establishes Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (CEC) (and revised if necessary) (California Public Resources Code, Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code, Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code, Section 25402[d]), and cost effectiveness (California Public Resources Code, Sections 25402[b][2] and [b][3]). These standards are updated to consider and incorporate new energy efficient technologies and construction methods. As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment. The 2016 Title 24 standards are the current applicable building energy efficiency standards, and became effective on January 1, 2017. The 2019 standards will continue to improve upon the 2016 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 standards will go into effect on January 1, 2020.

Title 24, Part 11 of the California Code of Regulations

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR 11) is commonly referred to as CALGreen, and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, schools, and hospitals. The CALGreen 2016 standards became effective on January 1, 2017. The CALGreen 2019 standards will go into effect on January 1, 2020, and will continue to improve upon the 2016 CALGreen standards for new construction of, and additions and alterations to, residential and nonresidential buildings.

Title 20 of the California Code of Regulations

Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

AB 1109

Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting to reduce electricity consumption 50 percent for indoor residential lighting and 25 percent for indoor commercial lighting.

Renewable Energy and Energy Procurement

SB 1078

SB 1078 (2002) established the RPS program, which requires an annual increase in renewable generation by the utilities equivalent to at least one percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20 percent of their power from renewable sources by 2010.

SB 1368

SB 1368 (2006) requires the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities. These standards must be consistent with the standards adopted by the California Public Utilities Commission. This effort will help protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital

investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and by requiring that the standards be developed and adopted in a public process.

SB X1 2

SB X1 2 (2011) expanded the RPS by establishing that 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33 percent by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

SB 350

SB 350 (2015) further expanded the RPS by establishing that 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030, be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the California Public Utilities Commission, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

SB 100

SB 100 (2018) increased the standards set forth in SB 350 establishing that 44 percent of the total electricity sold to retail customers in California per year by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030 be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the State that eligible renewable energy resources and zero-carbon resources supply 100 percent of the retail sales of electricity to California. This bill requires that the achievement of 100 percent zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Mobile Sources

AB 1493

In a response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493 was enacted in July 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009 through 2012) standards will result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, and the mid-term (2013 through 2016) standards will result in a reduction of about 30 percent.

EO S-1-07

Issued on January 18, 2007, EO S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10 percent by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste.

SB 375

SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations are then responsible for preparing an SCS within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If a SCS is unable to achieve the GHG reduction target, a metropolitan planning organization must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code, Section 65080(b)(2)(K), a SCS does not (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010, CARB adopted the SB 375 targets for the regional metropolitan planning organizations. The targets for SANDAG are a seven percent reduction in emissions per capita by 2020 and a 13 percent reduction by 2035.

SANDAG completed and adopted its 2050 Regional Transportation Plan (2050 RTP/SCS) in October 2011 (SANDAG 2011). In November 2011, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the 2050 RTP/SCS would achieve CARB's 2020 and 2035 GHG emissions-reduction targets for the region.

After SANDAG's 2050 RTP/SCS was adopted, a lawsuit was filed by the Cleveland National Forest Foundation and others. In July 2017, the California Supreme Court held that SANDAG's EIR did not have to use EO S-3-05's 2050 goal of an 80-percent reduction in GHG emissions from 1990 levels as a threshold because the EIR sufficiently informed the public of the potential impacts.

Although the EIR for SANDAG's 2050 RTP/SCS was pending before the California Supreme Court, in 2015, SANDAG adopted the next iteration of its RTP/SCS in accordance with statutorily mandated timelines, and no subsequent litigation challenge was filed. More specifically, in October 2015, SANDAG adopted San Diego Forward: The Regional Plan (Regional Plan). Like the 2050 RTP/SCS, the Regional Plan meets CARB's 2020 and 2035 reduction targets for the region (SANDAG 2015). In December 2015, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the Regional Plan would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2011). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75 percent less smog-forming pollution than the average new car sold before 2012. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34 percent in 2025. The zero emissions vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid EVs in the 2018 to 2025 model years.

EO B-16-12

EO B-16-12 (2012) directs state entities under the Governor's direction and control to support and facilitate development and distribution ZEVs. This EO also sets a long-term target of reaching 1.5 million ZEVs on California's roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions-reduction target from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on ZEVs that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet.

AB 1236

AB 1236 (2015) as enacted in California's Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of electric vehicle (EV) charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill provides for appeal of that decision to the planning commission, as specified. AB 1236 requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, which creates an expedited and streamlined permitting process for EV charging stations, as specified. Prior to this statutory deadline, in August 2016, the County Board of Supervisors adopted Ordinance No. 10437 (N.S.) adding a section to its County Code related to the expedited processing of EV charging stations permits consistent with AB 1236.

SB 350

In 2015, SB 350—the Clean Energy and Pollution Reduction Act—was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code, Section 740.12).

EO B-48-18

EO B-48-18 (2018) launches an eight-year initiative to accelerate the sale of EVs through a mix of rebate programs and infrastructure improvements. The order also sets a new EV target of five million EVs in California by 2030. EO B-48-18 includes funding for multiple state agencies including the CEC to increase EV charging infrastructure and CARB to provide rebates for the purchase of new EVs and purchase incentives for low-income customers.

Solid Waste

AB 939 and AB 341

In 1989, AB 939, known as the Integrated Waste Management Act (Public Resources Code, Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25 percent by 1995 and 50 percent by the year 2000.

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery to develop strategies to achieve the state's policy goal. The California Department of Resources Recycling and Recovery has conducted multiple workshops and published documents that identify priority strategies that it believes would assist the state in reaching the 75 percent goal by 2020 (CalRecycle 2015).

Water

EO B-29-15

In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have since become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

Other State Regulations and Goals

SB 97

SB 97 (August 2007) directed the Governor's Office of Planning and Research to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor's Office of Planning and Research issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities (OPR 2008). The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The California Natural Resources Agency (CNRA) adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which a project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009a).

With respect to GHG emissions, the CEQA Guidelines, Section 15064.4(a), state that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which a project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

EO S-13-08

EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009 (CNRA 2009a), and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016 (CNRA 2016). In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that state government should take to build climate change resiliency (CNRA 2018).

Biological Diversity v. California Department of Fish and Wildlife

In its decision in *Center for Biological Diversity v. California Department of Fish and Wildlife* (*Newhall*) 62 Cal.4th 204 (2015), the California Supreme Court set forth several options that lead agencies may consider for evaluating the cumulative significance of a proposed project's GHG emissions:

1. A calculation of emissions reductions compared to a "business as usual" scenario based upon the emissions reductions in CARB's Scoping Plan, including examination of the data to determine what level of reduction from business as usual a new land use development at the proposed location must contribute in order to comply with statewide goals.
2. A lead agency might assess consistency with AB 32's goals by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities.

3. Use of geographically specific GHG emission reduction plans to provide a basis for tiering and streamlining of project-level CEQA analysis.
4. A lead agency may rely on existing numerical thresholds of significance for GHG emissions, though use of such thresholds is not required.

The Newhall decision specifically found that use of a numerical threshold is not required.

Local

San Diego Air Pollution Control District

The SDAPCD does not have established GHG rules, regulations, or policies.

Poway Comprehensive Plan: General Plan

The Poway Comprehensive Plan: General Plan (General Plan) (City of Poway 1991) includes air quality policies that also have direct impacts to GHG emissions. For a complete list refer to the Poway Comprehensive Plan: General Plan discussion in Section 4.2.2 Relevant Plans, Policies, and Ordinances.

4.7.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to greenhouse gases/climate change are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to greenhouse gas emissions would occur if the project would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The Appendix G thresholds for GHGs do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009a). Additional guidance regarding assessment of GHG's is discussed below.

CEQA Guidelines

With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's greenhouse gas emissions or rely on a "qualitative analysis or other performance based standards" (14 CCR 15064.4[b]). A lead agency may use a "model or methodology" to estimate greenhouse gas emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change" (14 CCR 15064.4[c]). The CEQA Guidelines provide that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment (14 CCR 15064.4[b]):

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

In addition, the CEQA Guidelines specify that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7[c]).

Governor's Office of Planning and Research Guidance

The Governor's Office of Planning and Research technical advisory titled, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review, states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2008). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice" (OPR 2008).

Cumulative Nature of Climate Change

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project in the San Diego Air Basin, such as the proposed project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change.

While the proposed project would result in emissions of GHGs during construction and operation, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate. However, it is generally believed that an individual project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory as scientific uncertainty regarding the significance a project's individual and cumulative effects on global climate change remains.

Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). This approach is consistent with that recommended by the CNRA, which noted in its Public Notice for the proposed CEQA amendments (pursuant to SB97) that the evidence before it indicates that in most cases, the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact (CNRA 2009a). Similarly, the Final Statement of Reasons for Regulatory Action on the CEQA Amendments confirm that an EIR or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009b).

The analysis for compliance with regulatory programs only applies to the individual area addressed by the regulatory program. If the proposed project is determined to have GHG emissions less than 900 MT CO_2e per year, then the project's cumulative contribution of GHG emissions would be considered less than significant. Conversely, if the proposed project is determined to exceed the 900 MT CO_2e per year threshold, then the project's cumulative contribution of GHG emissions would be considered significant, and feasible mitigation measures would be required.

A numerical bright-line value for City projects does not yet exist. Moreover, no bright-line threshold has been formally adopted by an air district or other lead agencies for use in the San Diego region. The California Air Pollution Control Officers Association (CAPCOA) recommended an interim 900 MT CO_2e screening level as a theoretical approach to identify projects that require further analysis and potential mitigation (CAPCOA 2008). The 900 MT CO_2e per year screening threshold was developed by CAPCOA based on data collection on various development applications submitted among four diverse cities, including the Cities of Los Angeles, Pleasanton, Dublin, and Livermore. Following the review of numerous pending applications within these four cities, an analysis was conducted to determine the threshold that would capture 90 percent or more of applications that would be required to conduct a full GHG analysis and implement GHG emission-reduction measures as part of final project design. Following CAPCOA's analysis of development applications in various cities, it was determined that the threshold of 900 MT CO_2e per year would achieve the objective of 90 percent capture and ensure that new development projects would keep the State of California on track to meet the goals of AB 32. This 900 MT CO_2e screening level threshold is considered appropriate for small maritime projects or other land use types, but was not devised to include emissions associated with the larger goods movement (e.g., oceangoing vessels, freight rail) projects or larger industrial processes that are typically associated with marine terminals. Consequently, the interim screening level recommended by CAPCOA would be appropriate for the proposed project. The 900 MT CO_2e threshold is applied to evaluate whether the project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Lead agencies can set thresholds on a project-by-project basis, or they can informally or formally adopt thresholds to be consistently applied to all projects (OPR 2008). For the lead agency, having clearly established thresholds promotes predictability and consistency (over time and across reviewers) in the environmental review process, can bolster the defensibility of significance determinations in the lead agency's documents, and can focus the analysis on impacts expected to be significant rather than impacts that are simply controversial (AEP 2016). However, CEQA does not require that a lead agency use the same significance threshold for different CEQA documents (AEP 2016).

Lead agencies are encouraged in the CEQA Guidelines (14 CCR 15064.7[a]) to develop and formally adopt thresholds of significance, though most do not do so (AEP 2016). Thresholds established for general use by a lead agency must be adopted by ordinance, resolution, rule, or regulation; be subjected to public review; and be supported by substantial evidence (CEQA Guidelines Section 15064.7[b]). Thresholds used only for a specific project are not required to be adopted by ordinance or other formal means (AEP 2016).

Thresholds of significance must be backed by substantial evidence, which is defined in the CEQA statute to mean "facts, reasonable assumptions predicated on facts, and expert opinion supported by facts" (14 CCR 15384[b]).[3] Substantial evidence can be in the form of technical studies, agency staff reports or opinions, expert opinions supported by facts, and prior CEQA assessments and planning documents. The 900 MT CO_2E per year threshold is supported by expert opinion (i.e., CAPCOA 2008), agency guidance (e.g., County of San Diego 2015), and prior environmental impact reports (e.g., San Diego Unified Port District 2016, at a minimum).

The significance of a project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b) by considering whether the project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. As a land use development project, the most directly applicable adopted regulatory plan to reduce the proposed project's GHG emissions is SANDAG's Regional Plan, which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the state's long-term climate goals. This analysis also considers consistency with regulations or requirements adopted by the 2008 Climate Change Scoping Plan and subsequent updates.

4.7.4 Impacts Analysis

Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction Emissions

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. GHG emissions associated with temporary construction activity were quantified using CalEEMod. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Appendix B.

Table 4.7-1 shows the estimated annual GHG construction emissions associated with the proposed project, as well as the amortized construction emissions over a 30-year project life.

Table 4.7-1. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2021	1,391.42	0.37	0.00	1,400.24
2022	2,583.76	0.24	0.00	2,589.82
2023	2,792.01	0.20	0.00	2,796.98

[3] 14 CCR 15384 provides the following discussion: "Substantial evidence" as used in the Guidelines is the same as the standard of review used by courts in reviewing agency decisions. Some cases suggest that a higher standard, the so called "fair argument standard" applies when a court is reviewing an agency's decision whether or not to prepare an EIR. Public Resources Code section 21082.2 was amended in 1993 (Chapter 1131) to provide that substantial evidence shall include "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." The statute further provides that "argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence."

Table 4.7-1. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
2024	2,763.04	0.20	0.00	2,767.94
			Total	**9,554.98**
			Amortized Emissions	**318.50**

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
See Appendix B for complete results.

Total construction emissions for the proposed project were estimated to be approximately 9,555 MT CO_2e. Estimated amortized project-generated construction emissions over 30 years would be approximately 319 MT CO_2e per year. As with project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the proposed project would be short-term in nature, lasting only for the duration of the construction period for each phase, and would not represent a long-term source of GHG emissions.

Operational Emissions

Operation of the proposed project would generate GHG emissions through motor vehicle trips to and from the project site; landscape maintenance equipment operation; energy use (natural gas and generation of electricity consumed by the proposed project); solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution, as well as wastewater treatment. CalEEMod was used to calculate the annual GHG emissions based on the operational assumptions described in Section 3.4.2.2 of Appendix B.

Table 4.7-2 shows the estimated operational (year 2025) project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, and water usage and wastewater generation.

Table 4.7-2. Estimated Annual Operational GHG Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	127.97	0.00	0.00	128.77
Energy	603.13	0.02	0.00	606.62
Mobile	2,592.31	0.13	0.00	2,595.48
Solid waste	65.61	3.88	0.00	162.54
Water supply and wastewater	410.14	0.12	0.07	433.07
			Total	**3,926.48**
			Amortized Construction Emissions	*318.50*
			Operation + Amortized Construction Total	**4,244.98**

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
See Appendix B for detailed results.
These emissions reflect California Emissions Estimator Model "mitigated" output and operational year 2025.

As shown in Table 4.7-2, estimated annual project-generated GHG emissions in 2025 would be approximately 3,926 MT CO_2e per year as a result of proposed project operations. Estimated annual project-generated emissions in 2025 from area, energy, mobile, solid waste, and water/wastewater sources and amortized project-generated construction emissions would be approximately 4,245 MT CO_2e per year.

As discussed in Section 4.7.3, the significance threshold for the proposed project would be 900 MT CO_2e per year. Therefore, impacts would be **potentially significant** (**Impact GHG-1**) and mitigation would be required.

Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Consistency with SANDAG's San Diego Forward: The Regional Plan

Regarding consistency with SANDAG's Regional Plan, the proposed project would include site design elements and project design features developed to support the policy objectives of the RTP and SB 375. For example, the proposed project includes 60 acres of open space, including an integrated walking and bicycling trail system that would connect the various components of the proposed project as well as off-site amenities (e.g., food, coffee shops, drug stores). In addition, traffic calming measures on-site will enhance pedestrian experiences and widen the network of walkable routes throughout the community. The convenient availability of walking and bicycling trails and parks that are accessible for use by both nearby existing residents and new residents will serve to reduce VMT. Finally, because this proposed project is an infill project, it would have inherently less VMT than a project located at the outskirts of a city.

SANDAG's Regional Plan is a regional growth-management strategy that targets per-capita GHG reduction from passenger vehicles and light-duty trucks in the San Diego region. The Regional Plan will integrate land use and transportation strategies to meet GHG emissions reduction targets that are forecasted to achieve the state's 2035 and 2050 GHG reduction goals. The Regional Plan incorporates local land use projections and circulation networks in city and county general plans. Typically, a project would be consistent with the Regional Plan if it does not exceed the underlying growth assumptions within the Regional Plan.

Implementation of the proposed project would result in an increase in 160 residential units, as well as recreational, agricultural, and commercial uses. SANDAG's 2050 Regional Growth Forecast, adopted in October 2013, is the current growth forecast, and estimates that the City would have 16,855 units in 2020 and 17,685 units in 2035 (SANDAG 2013). This would equate to an additional 55 units per year from 2020 to 2035. The proposed project is expected to bring 160 units to market in 2025. However, the units would be released to the public in phases as they are constructed, resulting in an average of 40 units per year, which is within SANDAG's growth projection for housing. Therefore, the proposed project would not conflict with SANDAG's regional growth forecast for the City.

The Regional Plan includes the following daily VMT totals for the San Diego region as a whole: a daily 26 total VMT per capita for the 2005 base year; a daily 21.83 total VMT per capita for the 2020 plan year; 20.48 total VMT per capita for the 2035 plan year; and 19.9 total VMT per capita for the 2050 plan year. Linscott, Law & Greenspan prepared the Transportation Impact Analysis for The Farm in Poway in January 2020, which evaluated VMT for the proposed project and is provided in Appendix J. To analyze the consistency of the proposed project with the Regional Plan for informational purposes, the proposed project's total daily VMT was divided by the proposed project's service population to arrive at the per capita total daily VMT estimates. The total proposed project net daily VMT in 2025 is estimated to be 20,089 (Appendix J). The service population (employees, residents, and visitors) for the proposed project would be 1,057 (Appendix J). Therefore, the proposed project's total VMT per capita in 2025 would be 19.01, which would be less than the overall SANDAG region's daily 20.48 total VMT per capita for the 2035 plan year and 19.9 daily total VMT per capita for the 2050 plan year. Therefore, the proposed project would be consistent with the total VMT per capita, growth projections, and GHG reductions assumed within the Regional Plan.

Table 4.7-3 illustrates the proposed project's consistency with all applicable goals and policies of SANDAG's Regional Plan (SANDAG 2015).

Table 4.7-3. San Diego Forward: The Regional Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
The Regional Plan – Policy Objectives		
Mobility Choices	Provide safe, secure, healthy, affordable, and convenient travel choices between the places where people live, work, and play.	*Consistent.* The proposed project incorporates smart growth and sustainable design principles in its development plan. More specifically, the proposed project's design and compact setting facilitates a comprehensive, multi-modal transportation network and puts more people in areas that are more accessible to a range of transportation options, including public transit. The design and locational attributes of the proposed project positively emphasize particular commuting choices and convenient access to the rest of the City and the region, which will reduce the number of vehicle trips and overall VMT.
Mobility Choices	Take advantage of new technologies to make the transportation system more efficient and environmentally friendly.	*Consistent.* The proposed project includes EV charging stations to support EV adoption. Additionally, the proposed project would not impair SANDAG's ability to employ new technologies to make travel more reliable and convenient.
Habitat and Open Space Preservation	Focus growth in areas that are already urbanized, allowing the region to set aside and restore more open space in our less developed areas.	*Consistent*. The proposed project would be located close to major urban and employment centers. As such, the proposed project proposes to develop future housing opportunities in an infill location that capitalizes on existing infrastructure rather than other non-developed areas—including open space areas, sensitive habitats, or areas otherwise constrained due to topography, flooding, or other factors.
Habitat and Open Space Preservation	Protect and restore our region's urban canyons, coastlines, beaches, and water resources.	*Not Applicable*. The proposed project would not impair the ability of SANDAG to protect and restore urban canyons, coastlines, beaches, and water resources.
Regional Economic Prosperity	Invest in transportation projects that provide access for all communities to a variety of jobs with competitive wages.	*Not Applicable*. The proposed project would not impair the ability of SANDAG to invest in transportation projects available to all members of the Community.
Regional Economic Prosperity	Build infrastructure that makes the movement of freight in our community more efficient and environmentally friendly.	*Not Applicable*. The proposed project does not propose regional freight movement, nor would it impair SANDAG's ability to preserve and expand options for regional freight movement.
Partnerships/Collaboration	Collaborate with Native American tribes, Mexico, military bases, neighboring counties, infrastructure providers, the private sector, and local communities to design a transportation system that	*Not Applicable*. The proposed project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico, neighboring counties, and tribal nations.

Table 4.7-3. San Diego Forward: The Regional Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
	connects to the mega-region and national network, works for everyone, and fosters a high quality of life for all.	
Partnerships/Collaboration	As we plan for our region, recognize the vital economic, environmental, cultural, and community linkages between the San Diego region and Baja California.	*Not Applicable*. The proposed project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico.
Healthy and Complete Communities	Create great places for everyone to live, work, and play.	*Consistent*. The proposed project proposes new residential development in an infill location that would facilitate the creation of a more livable neighborhood that integrates residents into the existing community. The proposed project's design and compact mixed land use setting would improve land use access, as well as the neighborhood's multi-modal transportation network. The proposed project's internal circulation features would provide residents with the opportunity to access employment, recreational, and commercial uses via multiple modes of transportation. Additionally, the proposed project was designed to promote health and sustainability by focusing on a compact pattern of development and by offering many amenities to its residents within walking distance.
Healthy and Complete Communities	Connect communities through a variety of transportation choices that promote healthy lifestyles, including walking and biking.	*Consistent*. The proposed project's internal circulation features would provide residents with the opportunity to access employment, recreational, and commercial uses via multiple modes of transportation. The proposed project would also encourage non-vehicular modes of transportation through its proximate location to nearby amenities.
Environmental Stewardship	Make transportation investments that result in cleaner air, environmental protection, conservation, efficiency, and sustainable living.	*Consistent*. The proposed project was designed to promote health and sustainability by focusing on a compact pattern of development. The proposed project includes electric-vehicle charging stations.
Environmental Stewardship	Support energy programs that promote sustainability.	*Consistent*. The proposed project would include on-site renewable energy production through solar photovoltaic rooftop systems.
Sustainable Communities Strategy – Strategies		
Strategy #1	Focus housing and job growth in urbanized areas where there is existing and planned transportation infrastructure, including transit.	*Consistent.* The proposed project would be located close to major urban and employment centers. The proposed project would provide a significant infill opportunity for the community. As such, the proposed project proposes to develop future housing opportunities in an infill location that capitalizes on

Table 4.7-3. San Diego Forward: The Regional Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
		existing infrastructure rather than other non-developed areas—including open space areas, sensitive habitats, or areas otherwise constrained due to topography, flooding, or other factors.
Strategy #2	Protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat, open space, cultural resources, and farmland.	*Consistent.* The proposed project would be located close to major urban and employment centers. As such, the proposed project proposes to develop future housing opportunities in an infill location that capitalizes on existing infrastructure rather than other non-developed areas—including open space areas, sensitive habitats, or areas otherwise constrained due to topography, flooding, or other factors.
Strategy #3	Invest in a transportation network that gives people transportation choices and reduces greenhouse gas emissions.	*Consistent.* The proposed project would help reduce greenhouse gas emissions from vehicles in the region compared to a non-infill project.
Strategy #4	Address the housing needs of all economic segments of the population.	*Consistent.* With a variety of housing types and choices, the proposed project seeks to increase the housing supply and the mix of housing sizes, tenure, and affordability in the City. These housing types would support a range of buyers from various categories.
Strategy #5	Implement the Regional Plan through incentives and collaboration.	*Not Applicable.* The proposed project would not impair the ability of SANDAG to implement the Regional Transportation Plan through incentives and collaborations.

Source: SANDAG 2015.
Notes: City = City of Poway; proposed project = The Farm in Poway; VMT = vehicle miles traveled; SANDAG = San Diego Association of Governments; EV = electric vehicle.

As shown in Table 4.7-3, the proposed project would be consistent with all applicable Regional Plan policy objectives or strategies. SANDAG worked with the local jurisdictions to identify Regional Housing Needs Assessment allocation options that meet the four goals of housing element law (Government Code Section 65484[d][1]–[4]) within the Regional Plan. The second of the four objectives of the SANDAG Regional Housing Needs Assessment is to promote infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns. Also, one of the key achievements projected for the Regional Plan is for nearly three-quarters of multi-family housing to be built on redevelopment or infill sites. The proposed project would be consistent with that goal as it would be developed on an infill site.

In summary, the proposed project promotes a pedestrian experience for its residents and visitors that would facilitate non-vehicular travel, consistent with SB 375 and SANDAG's Regional Plan. As shown in Table 4.7-3, the proposed project would be consistent with policy objectives of SANDAG's Regional Plan. Impacts would be **less than significant**.

Consistency with CARB's Scoping Plan

The Scoping Plan, approved by CARB on December 12, 2008, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Relatedly, in the Final Statement of Reasons for the Amendments to the CEQA Guidelines, the CNRA observed that "[t]he [Scoping Plan] may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009a). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., low-carbon fuel standard), among others. The proposed project would comply with all applicable regulations adopted in furtherance of the Scoping Plan to the extent required by law.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 4.7-4 highlights measures that have been developed under the Scoping Plan and the proposed project's consistency with those measures. The table also includes measures proposed in the 2017 Scoping Plan Update. To the extent that these regulations are applicable to the proposed project, its inhabitants, or uses, the proposed project would comply with all applicable regulations adopted in furtherance of the Scoping Plan.

Table 4.7-4. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Transportation Sector		
Advanced Clean Cars	T-1	The proposed project's residents would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
1.5 million zero-emission and plug-in hybrid light-duty electric vehicles by 2025 (4.2 million Zero-Emissions Vehicles by 2030)	Proposed	The proposed project includes EV charging stations.
Low Carbon Fuel Standard	T-2	Motor vehicles driven by the proposed project's residents would use compliant fuels.
Low Carbon Fuel Standard (18 percent reduction in carbon intensity by 2030)	Proposed	Motor vehicles driven by the proposed project's residents would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	The proposed project would encourage use of alternative forms of transportation.
Advanced Clean Transit	Proposed	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Last Mile Delivery	Proposed	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.

Table 4.7-4. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Reduction in Vehicle Miles Traveled	Proposed	The proposed project is located on an infill site, which promotes compact walkable communities with an emphasis on proximity and accessibility.
Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing	T-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Ship Electrification at Ports (Shore Power)	T-5	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement Systemwide Efficiency Improvements 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction	T-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
California Sustainable Freight Action Plan	Proposed	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Heavy-Duty Vehicle GHG Emission Reduction 1. Tractor-Trailer GHG Regulation 2. Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	T-7	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Project	T-8	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Medium and Heavy-Duty GHG Phase 2	Proposed	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
High-Speed Rail	T-9	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Electricity and Natural Gas Sector		
Energy Efficiency Measures (Electricity)	E-1	The proposed project will comply with current Title 24, Part 6, of the California Code of Regulations energy efficiency standards for electrical appliances and other devices at the time of building construction.

Table 4.7-4. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Energy Efficiency (Natural Gas)	CR-1	The proposed project will comply with current Title 24, Part 6, of the California Code of Regulations energy efficiency standards for electrical appliances and other devices at the time of building construction.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	The proposed project would not employ solar water heating as part of the design.
Combined Heat and Power	E-2	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Renewable Portfolios Standard (33 percent by 2020)	E-3	The proposed project would use energy supplied by San Diego Gas and Electric, which is in compliance with the Renewable Portfolio Standard.
Renewable Portfolios Standard (50 percent by 2050)	Proposed	The proposed project would use energy supplied by San Diego Gas and Electric, which is in compliance with the Renewable Portfolio Standard.
Senate Bill 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	The proposed project would include solar roofs installations.
Water Sector		
Water Use Efficiency	W-1	The proposed project is going to utilize water saving features including low-flow fixtures and non-potable water for landscape irrigation.
Water Recycling	W-2	Recycled water will not be used on site.
Water System Energy Efficiency	W-3	This is applicable for the transmission and treatment of water, but it is not applicable for the proposed project.
Reuse Urban Runoff	W-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Renewable Energy Production	W-5	Applicable for wastewater treatment systems. Not applicable for the proposed project.
Green Buildings		
State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	The proposed project would be required to be constructed in compliance with state or local green building standards in effect at the time of building construction.
Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-2	The proposed project's buildings would meet green building standards that are in effect at the time of construction.
Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-3	The proposed project would be required to be constructed in compliance with local green building standards in effect at the time of building construction.
Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.

Table 4.7-4. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Industry Sector		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Reduce GHG Emissions by 20 percent in Oil Refinery Sector	Proposed	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Refinery Flare Recovery Process Improvements	I-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Work with the local air districts to evaluate amendments to their existing leak detection and repair rules for industrial facilities to include methane leaks	I-5	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Recycling and Waste Management Sector		
Landfill Methane Control Measure	RW-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Mandatory Commercial Recycling	RW-3	During both construction and operation of the proposed project, the proposed project would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act, as amended. During construction, all wastes would be recycled to the maximum extent possible.
Increase Production and Markets for Compost and Other Organics	RW-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Anaerobic/Aerobic Digestion	RW-5	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Extended Producer Responsibility	RW-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Environmentally Preferable Purchasing	RW-7	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.

Table 4.7-4. Project Consistency with Scoping Plan GHG Emission-Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Forests Sector		
Sustainable Forest Target	F-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
High Global Warming Potential Gases Sector		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
SF_6 Limits in Non-Utility and Non-Semiconductor Applications	H-2	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Reduction of Perfluorocarbons in Semiconductor Manufacturing	H-3	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Limit High Global Warming Potential Use in Consumer Products	H-4	The proposed project's residents would use consumer products that would comply with the regulations that are in effect at the time of manufacture.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
SF_6 Leak Reduction Gas Insulated Switchgear	H-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
40 percent reduction in methane and hydrofluorocarbon emissions	Proposed	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
50 percent reduction in black carbon emissions	Proposed	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Agriculture Sector		
Methane Capture at Large Dairies	A-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.

Source: CARB 2008, 2017.
Notes: GHG = greenhouse gas; proposed project = The Farm in Poway; CARB = California Air Resources Board; EV = electric vehicle; SF_6 = sulfur hexafluoride.

Based on the analysis in Table 4.7-4, the proposed project would be consistent with the applicable strategies and measures in the Scoping Plan.

In addition to the measures outlined in the Table 4.7-4, the Scoping Plan also highlights, in several areas, the goals and importance of infill projects. Specifically, the Scoping Plan calls out an ongoing and proposed measure to streamline CEQA compliance and other barriers to infill development. The plan encourages infill projects and sees them as crucial to achieving the State's long-term climate goals. The plan encourages accelerating equitable and affordable infill development through enhanced financing and policy incentives and mechanisms.

The state completed an Integrated Natural and Working Lands Climate Change Action Plan (Action Plan), which considers aggregation of eco-regional plans and efforts to achieve net sequestration goals. The Action Plan includes goals and plans to promote and provide incentives for infill development through community revitalization and urban greening and promote the adoption of regional transportation and development plans, such as SB 375 SCS and Climate Action Plans, which prioritize infill and compact development and also consider the climate change impacts of land use and management.

The following strategies were outlined to expand infill development within the Scoping Plan:

- Encouraging regional transfer of development rights programs to allow owners of natural and working lands to sell their development rights to developers who can use those rights to add additional density to development projects in preferred infill areas.
- Promoting regional transit-oriented development funds that leverage public resources with private-sector investment capital to provide flexible capital for transit-oriented development projects.
- Rebates for low-VMT/location-efficient housing, similar to programs that use rebates to encourage adoption of energy-efficient appliances, ZEVs, water-efficient yards, or renewable energy installation. For example, the rebate could reimburse residents for a portion of the down payment for purchasing or renting a qualified home in exchange for a minimum term of residence.
- Promotion of cross-subsidizing multi-station financing districts along transit corridors to leverage revenues from development in strong-market station areas in order to seed needed infrastructure and development in weaker-market station areas.
- Abatement of residential property tax increases in exchange for property-based improvements in distressed infill areas.
- Ways to promote reduced parking in areas where viable transportation alternatives are present.
- Additional creative financing mechanisms to enhance the viability of priority infill projects.
- Ways to promote and strengthen urban growth boundaries to promote infill development and conservation of natural and working lands by defining and limiting developable land within a metropolitan area according to projected growth needs.

In summary, the proposed project would be consistent with the measures and policy goals as shown in Table 4.7-4, Project Consistency with Scoping Plan GHG Emission-Reduction Strategies. The proposed project would also be consistent with the various efforts the Scoping Plan established to encourage infill development projects. Therefore, the proposed project would be consistent with CARB's Scoping Plan.

Finally, the SDAPCD has not adopted GHG reduction measures that would apply to the GHG emissions associated with the proposed project. Therefore, this impact would be **less than significant**.

The proposed project's impacts related to GHGs are listed as follows:

Impact GHG-1 The proposed project would result in 4,245 MT CO_2e per year, which would be greater than the significance threshold of 900 MT CO_2e per year.

4.7.5 Cumulative Impacts

As discussed in Section 4.7.4, Impacts Analysis, global climate change is a cumulative impact; however, as shown, the proposed project would have a less-than-significant impact with mitigation.

4.7.6 Mitigation Measures

The following mitigation measure is provided to reduce the proposed project's GHG emissions to less than significant.

MM-GHG-1 The applicant or its designee shall include the following features to reduce greenhouse gas emissions during operation:

1) Develop a comprehensive pedestrian network designed to provide safe bicycle and pedestrian access between the various internal proposed project land uses, which will include design elements to enhance walkability and connectivity and shall minimize barriers to pedestrian access and interconnectivity. Physical barriers—such as walls or landscaping—that impede pedestrian circulation shall be eliminated.
2) Include special safety mobility features such as enhanced crosswalks for high visibility, pedestrian signals with countdown timers, leading pedestrian interval timing, Americans with Disabilities Act (ADA)-compliant curb ramps, and smart adaptive signals that can adjust signal phasing and extend pedestrian walk time based upon time of day. The smart adaptive signals help to optimize traffic flows to reduce idling time.
3) Promote ridesharing programs through a multi-faceted approach, such as designating a certain percentage of parking spaces for ridesharing vehicles, designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles, or providing a website or message board for coordinating rides.
4) Install Energy Star rated heating, cooling, lighting, and appliances.
5) Outdoor lighting shall be light emitting diodes (LED) or other high-efficiency lightbulbs.
6) Implement water-sensitive urban design practices in new construction.
7) Strategically plant trees to provide shade.
8) Equip structures with outdoor electric outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment.
9) Outdoor pavement, such as walkways and patios, shall include paving materials with three-year Solar Reflective Index (SRI) of 0.28 or initial SRI of 0.33, or other equivalent cool pavement.

MM-GHG-2 The applicant or its designee shall purchase and retire greenhouse gas (GHG) offsets to reduce the proposed project's GHG emissions level to 900 metric tons of carbon dioxide equivalent (MT CO_2e) per year, consistent with the performance standards and requirements set forth below.

1) The GHG offsets shall be secured from an accredited registry that is recognized by the California Air Resources Board (CARB) or a California air district, or from an emissions reduction credits program that is administered by CARB or a California air district.
2) The GHG offsets shall represent the past reduction or sequestration of one MT CO_2e that is "not otherwise required," in accordance with California Environmental Quality Act Guidelines Section 15126.4(c)(3).
3) The GHG offsets shall be real, permanent, quantifiable, verifiable, and enforceable.

4) The quantity of GHG offsets required to achieve the service population value set forth above shall be calculated in and supported by technical documentation that is submitted to the City as part of the Mitigation Monitoring and Reporting Program, using an approved methodology demonstrating the quantity of reductions is valid and sufficient.

5) The applicant shall offset the proposed project's GHG emissions prior to receiving the 80th certificate of occupancy from the City. This represents 50 percent of the proposed project's residential build-out and thus the proposed project's emissions would be offset prior to completion of the proposed project.

4.7.7 Level of Significance After Mitigation

The GHG reduction measures included within MM-GHG-1 were conservatively not accounted for. With implementation of **MM-GHG-1** and **MM-GHG-2**, the proposed project would offset 3,345 MT CO_2e per year over the proposed project's lifetime, for a total of 100,350 MT CO_2e. The proposed project's GHG emissions would be reduced to a level below the significance threshold efficiency metric of 900 MT CO_2e per year. Therefore, the proposed project would result in a **less-than-significant** impact.

4.8 Hazards and Hazardous Materials

This section describes the existing hazardous materials conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures for implementation of the proposed project.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to hazards and hazardous materials focused on the following topics:

- Wildfire danger

These comments were considered during the preparation of this Environmental Impact Report (EIR). The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.8.1 Existing Conditions

Project Site

In its current state, the former StoneRidge Country Club golf course has resulted in code compliance issues for the City of Poway (City), including but not limited to unkempt landscape, as well as trespassing and graffiti on the private property. Conditions of the abandoned former clubhouse facility have created potential ongoing public health and safety hazards for existing surrounding residents.

Land uses in the proposed project area that may have involved hazardous materials and/or wastes include former agriculture and golf course maintenance. The former agricultural areas could have a potential risk of contamination from historical use of herbicides, pesticides, and fertilizer. Golf course maintenance could have potential risk of contamination from uses of petroleum products (e.g., for vehicle and equipment), pesticides, herbicides, and fertilizers. Other hazardous materials may have also been used for maintenance activities, such as solvents and cleaning products.

Site History

Based on a review of publicly available aerial photographs (NETROnline 2019), the former StoneRidge Country Club golf course was constructed between 1953 and 1964. Prior to construction of the golf course, it appears that the project site was either undeveloped or used as agricultural land. Residential development surrounding the project site occurred between 1968 and 1980.

Hazardous Materials

Government Code Section 65962.5 requires the California Department of Toxic Substances Control (DTSC), the State Department of Health Services, the State Water Resources Control Board (SWRCB), and the California Department of Resources Recycling and Recovery (CalRecycle) to compile and annually update lists of hazardous waste sites and lands designated as hazardous waste sites throughout the state. The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." The Cortese List, which includes the resources listed below, was reviewed for hazardous waste sites along the project alignment.

- List of hazardous waste and substances sites from the DTSC EnviroStor database
- List of leaking underground storage tank (LUST) sites from the SWRCB GeoTracker database

- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit
- List of "active" cease-and-desist orders and cleanup and abatement orders from SWRCB
- List of hazardous waste facilities subject to corrective action identified by DTSC

Dudek reviewed the above-listed databases and lists for information regarding hazardous materials or hazardous wastes on the project site. There were no Cortese list sites identified on, or within one mile of, the project site. There were also no sites identified on the EnviroStor database on, or within one mile of, the project site (EnviroStor 2019). One closed LUST site was identified on the project site on the GeoTracker database, as discussed below.

GeoTracker Database

One former LUST cleanup site is located in the southwest corner of the project site. Information indicates the LUST case was associated with the former StoneRidge Country Club, 17166 Stoneridge Country Club Lane. According to the site background (DES 2013), two 1,000-gallon gasoline underground storage tanks were found to be leaking and were removed in 1993. Gasoline hydrocarbons (TPHg), benzene, and methyl tertiary butyl ether (MTBE) were determined to be contaminants of concern in soil and groundwater. Impacted soils were excavated down to 20 feet below ground surface in the area of the former LUSTs, and groundwater was monitored intermittently between 1995 and 2012. The approximate location of the former LUSTs is shown on Figure 4.8-1, Project Site Hazards.

In order to receive regulatory closure, a Corrective Action Plan (CAP) was prepared (DES 2013). The CAP stated that groundwater at the project site is used for a drinking water supply. However, the proposed project would not use groundwater for construction or operational activities. Groundwater samples collected in 2012 showed no detectable concentrations of benzene or TPHg, but MTBE was detected in three wells between 2 and 4 parts per billion. It was determined that the MTBE plume was stable and decreasing (based on analytical results from 2004 through 2012). The CAP recommended remediation of groundwater to remove residual MTBE. Although the CAP was approved by the regulatory agency, no additional remedial actions were performed. Groundwater monitoring wells were removed in 2013 without regulatory agency approval.

In 2015, the San Diego Regional Water Quality Control Board (RWQCB) determined that the remaining MTBE in groundwater was at an acceptable level for closure. The case received regulatory closure as of February 26, 2015 (Case No. 9UT2469) (GeoTracker 2019). The closure letter included the following advisories (San Diego RWQCB 2015):

1. Any land use changes for the site may require reevaluation to determine of the changes pose an unacceptable risk to public health;
2. Any contaminated soil encountered or excavated as part of future subsurface construction/utility work must be managed in accordance with all applicable legal and regulatory requirements; and
3. All future construction on the project must include post construction best management practices to control stormwater runoff in compliance with the US EPA Guidance Document: "Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act."

In 2017, a Soil Vapor Assessment Workplan (Workplan) (Geocon 2017) was completed in order to assess potential vapor intrusion risks for future residential development. Mr. Sean McClain of the San Diego RWQCB responded to the Workplan in an email on November 27, 2017 (McClain, pers. comm. 2017). In the email, Mr. McClain required additional items for the Workplan, as wells as preparation of a Soil Management Plan and submittal to the San Diego RWQCB for approval before any grading or excavation of soil near the former underground storage tank pit area. Based on available information, no additional work has been completed on the project site with respect to the former LUSTs.

Additional Environmental Databases

The National Pipeline Mapping System provides an online mapping application with information related to gas transmission and hazardous liquid (petroleum) pipelines, liquefied natural gas plants, and breakout tanks, as well as accidents and incidents related to these features that fall under the jurisdiction of the Department of Transportation Pipeline and Hazardous Materials Safety Administration. No pipelines, accidents, incidents, or other features were identified on, or within one mile of, the project site on the National Pipeline Mapping System database.

Schools

Painted Rock Elementary School, located at 16711 Martincoit Road, is the only school within one-quarter mile of the proposed project. The school is located approximately 0.16 miles south of the project site (CSCD 2019). There are no proposed schools located on, or within one-quarter mile of, the project site (CDE 2019).

Fire Hazards

The project site is surrounded on all sides by residential neighborhoods, within the City of Poway Fire Department's (PFD's) jurisdiction; therefore the project site is currently served by PFD. Additionally, PFD Fire Station 2 is located less than one-half mile east of the project site at 16912 Westling Court, just off of Espola Road. Fire Station 2 has a travel time goal of six minutes or less, 90 percent of the time. The response time to the furthest planned home within the project site would be well within this six-minute goal. According to the PFD Deputy Fire Chief, Jon M. Canavan, there are no department goals regarding ratio of firefighters per capita. There are no additional staffing requirements anticipated for development of the proposed project (Kruer, pers. comm. 2007).

A small area in the northeast portion of the project site is located within the Very High Fire Severity Zone. (CAL FIRE 2009). Proposed homes within the Very High Fire Severity Zone include all homes within the Residential – Homestead (R-H) land use district. The existing homes within the R-H land use district reflect development standards that include additional setback and building standards. In addition, all new development would be required to comply with the Fuels Management Plan (FMP) prepared for the Farm in Poway in January 2020. The FMP is included as Appendix L of this EIR.

Emergency Response

The City does not have a current emergency response plan or evacuation routes; however it does administer the Community Emergency Response Team (CERT) Program, which educates City residents and adjacent cities about disaster preparedness. Once a year, the City offers a CERT academy that provides training in basic disaster response skills such as fire safety, simple search and rescue, basic first aid, terrorism, emergency preparedness, and disaster psychology. Graduates of the program or an equivalent CERT course are eligible to apply for membership in the City's CERT and are required to attend two trainings of community events each year (City of Poway 2019a).

Law enforcement services are provided by contract with the San Diego County Sheriff's Department. The Poway Sheriff's Station, located at 13100 Bowron Road, provides patrol, traffic, and investigative services to the City. The Poway Station currently consists of 45 sworn personnel, six civilians, 13 reserve deputies, and 55 senior volunteer patrol personnel (San Diego County Sheriff 2019).

4.8.2 Relevant Plans, Policies, and Ordinances

Federal

Comprehensive Environmental Response, Compensation, and Liability Act and Superfund Amendments and Reauthorization Act

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites; required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations; provided new enforcement authorities and settlement tools; increased state involvement in every phase of the Superfund program; increased the focus on human health problems posed by hazardous waste sites; encouraged greater citizen participation in making decisions on how sites should be cleaned up; and increased the size of the trust fund to $8.5 billion.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act, also known as SARA Title III, was enacted in October 1986. This law requires any infrastructure at the state and local levels to plan for chemical emergencies. Reported information is then made publicly available so that interested parties may become informed about potentially dangerous chemicals in their community. The Emergency Planning Community Right-to-Know Act Sections 301 through 312 are administered by the U.S. Environmental Protection Agency's (EPA's) Office of Emergency Management. In California, SARA Title III is implemented through the California Accidental Release Prevention (CalARP) Program.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that: (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

Hazardous Materials Transportation Act

The U.S. Department of Transportation regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations. The California Highway Patrol and the California Department of Transportation are the state agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. These agencies also govern permitting for hazardous materials transportation. Title 49 of the Code of Federal Regulations reflects laws passed by Congress as of January 2, 2006.

International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what measures are required to protect fire and life safety. These measures may include construction standards, separation from project site lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every three years.

National Emissions Standards for Hazardous Air Pollutants Program

Under federal law, 188 substances are listed as hazardous air pollutants. Major sources of specific hazardous air pollutants are subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants program. The EPA is establishing regulatory schemes for specific source categories, and requires implementation of Maximum Achievable Control Technologies for major sources of hazardous air pollutants in each source category. State law has established the framework for California's Toxic Air Contaminant Identification and Control Program, which is generally more stringent than the federal program, and is aimed at hazardous air pollutants that are a problem in California. The state has formally identified more than 200 substances as toxic air contaminants, and is adopting appropriate control measures for each. Once adopted at the state level, each local air district will be required to adopt a measure that is equally or more stringent.

Occupational and Safety Health Act

Congress passed the Occupational and Safety Health Act to ensure worker and workplace safety. Its goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Occupational and Safety Health Act also created the National Institute for Occupational Safety and Health as the research institution for the Occupational Safety and Health Administration. The Occupational Safety and Health Administration is a division of the U.S. Department of Labor that oversees the administration of the Occupational and Safety Health Act and enforces standards in all 50 states. Because California has an approved State Plan, only California Occupational Safety and Health Administration (Cal/OSHA) standards apply to the project site.

Renovating, Repair, and Painting Rule

In 2008, the EPA issued the Renovation, Repair, and Painting Rule. This rule requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978 homes, child care facilities, and schools be certified by the EPA, and that they use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices. Individuals can become certified renovators by taking an eight-hour training course from an EPA-approved training provider. Contractors must use lead-safe work practices and follow these three simple procedures: (1) contain the work area; (2) minimize dust; and (3) clean up thoroughly.

Resource Conservation and Recovery Act

Federal hazardous waste laws are generally promulgated under the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. These laws provide for the "cradle to grave" regulation of hazardous wastes. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of. The DTSC is responsible for implementing the RCRA program as well as California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Certified Unified Program Agency program, the California Environmental Protection Agency (CalEPA) has in turn delegated enforcement authority to the County of San Diego Department of Environmental Health (DEH) for regulating hazardous waste producers or generators.

Robert T. Stafford Disaster Relief and Emergency Assistance Act

Code of Federal Regulations Sections 206.31–206.48 provide the statutory framework for a presidential declaration of an emergency or a declaration of a major disaster. Such declarations open the way for a wide range of federal resources to be made available to assist in dealing with an emergency or major disaster. The Stafford Act structure for the declaration process reflects the fact that federal resources under this act supplement state and local resources for disaster relief and recovery. Except in the case of an emergency involving a subject area that is exclusively or preeminently in the federal purview, the governor of an affected state, or acting governor if the governor is not available, must request such a declaration by the president.

Risk Assessment and Regional Screening Levels

The EPA and DTSC use risk assessments to characterize the nature and magnitude of health risks to humans and ecological receptors from chemical contaminants and other stressors that may be present in the environment. In general terms, risk depends on the following three factors: how much of a chemical is present in an environmental medium (air, soil, water), how much contact (exposure) a person or ecological receptor has with the contaminated environmental medium, and the inherent toxicity of the chemical. The EPA developed Regional Screening Levels (RSLs), which provide a unified set of screening level/preliminary remediation goals for all regions of the EPA for screening chemical contaminants at superfund sites. The RSLs replaced the Preliminary Remediation Goals (PRGs) in 2008. The RSLs are calculated using the latest toxicity values, default exposure assumptions and physical and chemical properties. The RSLs are considered by the EPA to be protective for humans (including sensitive groups) over a lifetime. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding RSLs can be assumed to not pose a significant health risk to people who may live (residential RSLs) or work (commercial/industrial RSLs) at the site. The EPA RSL tables were most recently updated in November 2018.

The DTSC Human and Ecological Risk Office (HERO) incorporated the EPA RSLs into the HERO human health risk assessment. The HERO review of the EPA RSLs determined that the revised RSLs included some levels that were substantially higher, and therefore less protective, than the previous PRGs. HERO therefore created Human Health Risk Assessment Note 3, which incorporates HERO recommendations and DTSC-modified screening levels based on review of the EPA RSLs. The DTSC-modified screening levels should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities. HERO Note 3 was most recently updated in April 2019.

State

California Environmental Quality Act

CEQA (California Public Resources Code, Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Emergency Services Act

The California Emergency Services Act was adopted to establish the state's role and responsibilities during human-made or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or the resources of the state. The California Emergency Services Act is intended to protect health and safety by preserving the lives and property of the people of the state. The Office of Emergency Services coordinates the responses of other agencies, including the EPA, California Highway Patrol, RWQCBs, air quality management districts, and county disaster response offices.

California Fire Code

The California Fire Code (CFC) is provided in California Code of Regulations Title 24, Chapter 9. It was created by the California Building Standards Commission and is based on the IFC. The CFC is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separation from project site lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every three years.

California Natural Disaster Assistance Act

The California Natural Disaster Assistance Act provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The California Natural Disaster Assistance Act is activated after a local declaration of emergency, after the California Emergency Management Agency gives concurrence with the local declaration, or after the Governor issues a proclamation of a state emergency. Once the California Natural Disaster Assistance Act is activated, local government is eligible for certain types of assistance, depending upon the specific declaration or proclamation issued.

California State Fire Plan

The 2010 California State Fire Plan is the first statewide fire plan developed in concert between the California Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection (CAL FIRE). The central goals of the California State Fire Plan include (1) improved availability and use of information on hazard and risk assessment; (2) land use planning, including general plans, new development, and existing developments; (3) shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as community wildfire protection plans; (4) establishing fire resistance in assets at risk, such as homes and neighborhoods; (5) shared vision among multiple fire protection jurisdictions and agencies; (6) levels of fire suppression and related services; and (7) post-fire recovery.

Emergency Response to Hazardous Materials Incidents

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government, and private agencies. The Emergency Response Plan is administered by the California Emergency Management Agency and includes response to hazardous materials incidents. The California Emergency Management Agency coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife, the RWQCBs, San Diego Air Pollution Control District, City of San Diego Fire Department, and the DEH Hazardous Incident Response Team.

Cortese List

The Hazardous Waste and Substance Sites Cortese List is a planning document used by the state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5(a) requires CalEPA to develop at least annually an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous materials release information for the Cortese List.

Hazardous Materials Release Response Plans and Inventory

Two programs found in California Health & Safety Code Chapter 6.95 are directly applicable to the CEQA issue of risk due to hazardous substances release: the Hazardous Materials Business Plan program and the CalARP program. In the San Diego region, DEH is responsible for implementing the Hazardous Materials Business Plan and CalARP programs, which provide threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, a Hazardous Materials Business Plan or Risk Management Plan is required pursuant to the regulation. Congress requires the EPA Region 9 to make Risk Management Plan information available to the public through the EPA's Envirofacts Data Warehouse. The Envirofacts Data Warehouse is considered the single point of access to select EPA environmental data.

Senate Bill 1889 – Accidental Release Prevention Law/CalARP Program

Senate Bill 1889 required California to implement a new federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the Clean Air Act. Effective January 1, 1997, the Accidental Release Prevention Law/CalARP replaced the previous California Risk Management and Prevention Program and incorporated the mandatory federal requirements. CalARP addresses facilities that contain specified hazardous materials (known as regulated substances) that if involved in an accidental release, could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

State Fire Regulations

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, and include regulations concerning building standards (as also set forth in the CBC), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The State Fire Marshal enforces these regulations and building standards in all state-owned buildings, state-occupied buildings, and state institutions throughout California.

Title 14 Division 1.5 of the California Code of Regulations

Title 14 Division 1.5 of the California Code of Regulations establishes the regulations for CAL FIRE and is applicable in all State Responsibility Area areas where CAL FIRE is responsible for wildfire protection. Development within State Responsibility Area areas must comply with these regulations. Among other things, Title 14 establishes minimum standards for emergency access, fuel modification, project site line setbacks, signage, and water supply.

Title 22 of the California Code of Regulations and Hazardous Waste Control Law, Chapter 6.5

The DTSC regulates the generation, transportation, treatment, storage and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Both laws impose "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. CalEPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other Certified Unified Program Agencies, including the DEH.

Underground Storage Tank Act

The Underground Storage Tank Act monitoring and response program is required under Chapter 6.7 of the California Health & Safety Code and Title 23 of the California Code of Regulations. The program was developed to ensure that facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response in operating or owning underground storage tanks. DEH is the administering agency for this program in the project area.

California Occupational Safety and Health Administration

Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are required to be "as effective as" federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 330 et seq.). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings. The employer is also required, among other things, to have an Illness and Injury Prevention Program.

Cal/OSHA Asbestos and Carcinogen Unit

Cal/OSHA Asbestos and Carcinogen Unit enforces asbestos standards in construction, shipyards, and general industry. This includes identification and removal requirements of asbestos in buildings, as well as health and safety requirements of employees performing work under the Asbestos-In-Construction regulations (8 CCR 1529). Only a Cal/OSHA-Certified Asbestos Consultant can provide asbestos consulting (as defined by the Business and Professions Code, 7180–7189.7, and triggered by the same size and concentration triggers as for registered

contractors). These services include building inspection, abatement project design, contract administration, supervision of site surveillance technicians, sample collection, preparation of asbestos management plans, and clearance air monitoring.

California Department of Public Health

The California Department of Public Health enforces lead laws and regulations related to the prevention of lead poisoning in children, prevention of lead poisoning in occupational workers, accreditation and training for construction-related activities, lead exposure screening and reporting, disclosures, and limitations on the amount of lead found in products. Accredited lead specialists are required to find and abate lead hazards in a construction project and to perform lead-related construction work in an effective and safe manner.

Local

San Diego County of Department of Environmental Health

The DEH protects public health and safeguards environmental quality, educates the public to increase environmental awareness, and implements and enforces local, state, and federal environmental laws. The DEH regulates the following: retail food safety; public housing; public swimming pools; small drinking water systems; mobile-home parks; on-site wastewater systems; recreational water; oversight and cleanup of aboveground storage tanks and underground storage tanks; and medical and hazardous materials and waste.

County of San Diego Office of Emergency Services

The Unified San Diego County Emergency Services Organization has primary responsibility for preparedness and response activities, and addresses disasters and emergency situations within the unincorporated area of the County of San Diego (County). The County of San Diego Office of Emergency Services serves as staff to the Unified Disaster Council, the governing body of the Unified San Diego County Emergency Services Organization. Emergency response and preparedness plans include the Operational Area Emergency Response Plan and the County Multi-Jurisdictional Hazard Mitigation Plan.

San Diego Air Pollution Control District

Under Regulation XI, Subpart M – National Emission Standards for Asbestos, Rule 361.145 – Standard for Demolition and Renovation, the San Diego Air Pollution Control District requires that the proponent of a proposed demolition or renovation project submit an Asbestos Demolition or Renovation Operational Plan ("Notice of Intention") at least 10 days prior to the onset of any asbestos stripping or removal work. It should be noted that the Notice of Intention is required for all demolition projects, regardless of the presence of asbestos.

Multi-Jurisdictional Hazard Mitigation Plan

The Multi-Jurisdictional Hazard Mitigation Plan includes an overview of the risk assessment process, vulnerability assessments, and identifies hazards present in each jurisdiction of the County. Hazards profiled in the plan include wildfire, structure fire, flood, coastal storms, erosion, tsunami, earthquakes, liquefaction, rain-induced landslide, dam failure, hazardous materials incidents, nuclear materials release, and terrorism. The plan sets forth a variety of objectives and actions based on a set of broad goals including the following: (1) promoting disaster-resistant future development; (2) increased public understanding and support for effective hazard mitigation; (3) building support of local capacity and commitment to become less vulnerable to hazards; (4)

enhancement of hazard mitigation coordination and communication with federal, state, local and tribal governments; and (5) reducing the possibility of damage and losses to existing assets, particularly people, critical facilities or infrastructure, and County-owned facilities, due to dam failure, earthquake, coastal storm, erosion, tsunami, landslides, floods, structural fire/wildfire, and human-made hazards.

San Diego County Site Assessment and Mitigation Program

The DEH maintains the Site Assessment and Mitigation list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions. The San Diego County Site Assessment and Mitigation Program has a primary purpose to protect human health, water resources, and the environment within the County by providing oversight of assessments and cleanups in accordance with the California Health and Safety Code and the California Code of Regulations. The Site Assessment and Mitigation Program's Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances.

Poway Comprehensive Plan: General Plan

The Poway Comprehensive Plan: General Plan (General Plan) includes the following policies regarding hazards and hazardous materials (City of Poway 1991).

Goal VII: It is the goal of the City of Poway to provide a safe and healthy environment for the residents of Poway.

Policy B – Fire Protection: The City shall maintain a high standard of fire protection services.

- **Strategy 1:** Encourage the development, implementation and public awareness of fire prevention programs.
- **Strategy 2:** Implement programs to reduce the quantity of combustible vegetative materials in the City to reduce wildland fire hazards including a brush management program subject to approval by the City.
- **Strategy 3:** Continue the use of the Weed Abatement Program and a fire buffer program along heavily traveled roads through thinning disking or controlled burning subject to air quality standards. Brush, not trees, should be cleared from both sides of major arterials.
- **Strategy 4:** The existing rows of eucalyptus trees should be trimmed periodically and combustible vegetative materials at the tree base should be periodically removed.
- **Strategy 5:** All proposed development shall satisfy the minimum structural fire protection standards contained in the adopted editions of the Uniform Fire and Building Codes; however, where deemed appropriate, the City shall enhance the minimum standards to provide optimum protection.
- **Strategy 6:** Fire protection requirements shall be expanded where structural and/or capital improvements cannot adequately protect the community from property damage or potential loss of life.
- **Strategy 7:** Study the feasibility of regulations requiring the installation of a sprinkler system at the time of construction of new residential structures, and in conjunction with expansion or substantial interior remodeling of existing structures.
- **Strategy 8:** Require fire retardant roofing materials based upon the type of construction in and outside of high fire hazard areas.
- **Strategy 9:** Enforce the fire control requirements of the City's landscape standards.

- **Strategy 10:** In order to minimize fire hazards, the Poway Fire Department shall routinely be involved in the review of development applications. Consideration shall be given to adequate emergency access, driveway widths, turning radii, fire hydrant locations and needed fire flow requirements.
- **Strategy 11:** Advocate and support State legislation which would provide tax incentives encouraging the repair or demolition of structures which are classified as high fire hazards.
- **Strategy 12:** The construction of public facilities and transportation corridors shall be consistent with the adopted standards of the Uniform Building Code and Uniform Fire Code.
- **Strategy 13:** Fire stations shall be located on or near arterial roadways to provide for rapid response times.
- **Strategy 14:** The timing of station construction shall relate to the rise of service demand in the surrounding areas.
- **Strategy 15:** The location of stations should consider existing and projected land uses and appropriate buffering should be provided where necessary.
- **Strategy 16:** Proposed Fire Station 3 shall be located in the South Poway Business Park.
- **Strategy 17**: Emphasis on future construction and capital improvements should be toward the alleviation of deficiencies in critical risk areas.
- **Strategy 18:** Opportunities for joint-power agreement facilities and/or operations should be evaluated and pursued where practical.
- **Strategy 19:** Support mutual aid agreement and communication links with the County and the other municipalities participating in the Unified San Diego County Emergency Service Organization.

Policy G – Hazardous Waste Management: The City supports the San Diego County Hazardous Waste Management Plan and seeks its implementation by encouraging waste minimization, proper disposal of household hazardous wastes and by establishing criteria for land use decisions regarding hazardous waste treatment facility siting.

- **Strategy 1:** Encourage businesses to conduct waste minimization opportunity assessments to determine their potential for source reduction and recycling and to achieve the County-wide goal of 30 percent reduction in hazardous waste by 1994.
- **Strategy 2:** Investigate the adoption of an ordinance to require businesses to prepare submit and implement hazardous waste minimization plans.
- **Strategy 3:** Consider establishing a reward program to recognize businesses that implement waste minimization successfully and conducting a media campaign designed to recognize these businesses.
- **Strategy 4:** Encourage safe and proper disposal of household hazardous waste; comply with Integrated Waste Management Act requirements of no Household Hazardous Waste to landfills by 1995.
- **Strategy 5:** Continue to encourage district collection events and seek an appropriate location to establish a permanent community collection center Contaminated Sites.
- **Strategy 6:** Seek to ensure timely and complete cleanup of contaminated sites.
- **Strategy 7:** The siting criteria of the San Diego County Hazardous Waste Management Plan are incorporated into the Poway General Plan by reference and shall be used to determine acceptable locations and conditions for off-site hazardous waste treatment facilities.
- **Strategy 8:** Ensure that off-site hazardous waste treatment facilities are subject to complete and thorough local review.
- **Strategy 9:** Encourage the coordination of facility siting responsibilities among Southern California's local governments through adoption and implementation of the Southern California Hazardous Waste Management Authority Regional Plan Fair Share Policies and Regional Action Plan

City of Poway Municipal Code

Chapter 15.24 of the City's Municipal Code (City of Poway 2019b) outlines the Fire Code, which provides for the preparation and carrying out of plans for the protection of persons and property within the City in the event of an emergency. It also discusses the building standards for residential and commercial structures within high fire severity zones.

Chapter 8.88 of the City's Municipal Code discusses the acceptable use and abatement of hazardous materials, vegetation, defensible space, and waste. The purpose and findings of this section declare that (City of Poway 2019b):

- The City of Poway is at serious risk of wildfire due to its terrain, with steep mountainous slopes and valleys; a warm, dry climate; and highly flammable chaparral vegetation. For this reason, a comprehensive strategy for reducing the risk of wildfire is necessary. This strategy includes the creation of defensible space by clearing highly flammable chaparral vegetation around structures, and the Vegetation Management Program, involving the removal of weeds and dry grasses from private property.
- The public health and safety are also threatened by the accumulation of waste material that is left out in the open, such as rubbish, crates, cartons, metal and glass containers, and vehicle bodies and parts. This chapter also provides for the abatement of accumulated waste material that has been determined to be a public nuisance.
- Hazardous substances and hazardous wastes present in the community may pose acute and chronic health hazards to individuals who live and work in the City, and who are exposed to such substances as a result of fires, spills, industrial accidents, or other types of releases or emission.
- The people who live and work in the City have a right and need to know of the use and potential hazards of hazardous materials.
- Basic information on the location, type, quantity and the health risks of hazardous materials used, stored, or disposed of in the City is not now available to firefighters, health officials, health care providers, planners, elected officials, and residents.
- It is the intent of the City Council that this section through PMC [Poway Municipal Code] 8.88.130 recognize the community's right and need for basic information on the use and disposal of hazardous materials in the City and that it establish an orderly system for the provision of such information including appropriate education and training for use of information.
- It is further the intent of the City Council that the system of disclosure set forth through PMC 8.88.130 shall provide the information essential to firefighters, health officials, health care providers, planners, elected officials and residents in meeting their responsibilities for the health and welfare of the community in such a way that the statutory privilege of trade secrecy is not abridged. (Ord. 94 § 1, 1983; Ord. 29 § 1, 1981; CC § 68.641)
- It is the intent of the City Council that the Health Officer establish a program to monitor establishments where hazardous wastes are produced, stored, handled, disposed of, treated or recycled. It is further the intent of the City Council that the Health Officer 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. (Ord. 95 § 2, 1983; Ord. 29 § 1, 1981; CC § 68.901)

City of Poway Landscape and Irrigation Design Manual

The City's Landscape and Irrigation Design Manual provides for the requirements for the establishment of irrigation systems for the purpose of providing consistency with the City's General Plan and Municipal Code.

Section 4 of the manual, Vegetative Fuel Management in Very High Fire Hazard Areas, establishes the following requirements for the City (City of Poway 2018):

1. Vegetative Fuel Management Plans

   Plans shall be approved prior to fuel modification work. Plans shall be based on site plans and grading plans showing elevation contours (slopes). Plans shall indicate the widths of the fuel modification zones on the site, including slopes. Plans shall include, at a minimum: (1) plan showing existing vegetation; and, (2) grading plans showing location of proposed structures and setback from top of slope to all structures.

2. Fuel Modification Installations

   All fuel modification work shall be completed prior to the final inspection for issuance of a certificate of occupancy.

3. Plant Selection and Removal

   Plant lists at the end of this Section (Tables 4-1 and 4-2) suggest species that should be avoided or removed, and are acceptable fire-resistant species. Prior to removal of vegetation, consult a qualified professional landscape architect or biologist to identify desirable native plants to remain. Removal of native trees, as outlined in Chapter 12.32 PMC, URBAN FORESTRY, requires a separate Tree Removal Permit from the City. Native tree species are defined in the City of Poway Urban Forestry Ordinance.

4. Tree Pruning

   4.1 Native trees to be retained within fuel modification zones shall be pruned to maintain a vertical separation of not less than six (6) feet above underlying groundcover. If shrubs are located underneath the drip line of a tree, the lowest branch should be at least three times as high as the understory shrubs or 10 feet, whichever is greater. Pruning of the shrubs and groundcover will minimize the impact of the tree pruning.

   4.2 Trees shall not be topped, as defined in the City of Poway Urban Forestry Ordinance.

   4.3 Tree pruning work shall be in accordance with the standards of the International Society of Arboriculture (ISA), Western Chapter. Refer to Section Four, Landscape Planting Requirements, herein for pruning standards.

City of Poway Habitat Conservation Plan/Natural Community Conservation Plan

Section 6.2.2.1 of the Poway Subarea Habitat Conservation Plan/Natural Community Conservation Plan (Poway Subarea HCP/NCCP) (City of Poway 1996) provides for management strategies for the prevention of wildfires. Fire management can focus on two potentially different objectives: (1) achievement of biological resources goals, and (2) hazard reduction for humans and their property. Biological resources goals recognize that fire is a natural process in ecosystems. These goals include maintaining or restoring specific species; rejuvenating vegetation communities; creating vegetation mosaics that favor increased animal species diversity; providing habitat for species characteristic of early post-fire landscapes; and controlling exotic plant species invasions. Fire management can also affect restoration of disturbed habitats and site hydrology, which will directly impact habitat value for wildlife. Fire management for human hazard reduction involves reducing fuel loads in areas where fire may threaten human safety or property, and suppressing fires once they have started. Provision for access of fire suppression equipment and personnel is important to achieving safety goals.

4.8.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to hazards and hazardous materials are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hazards and hazardous material would occur if the project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
4. 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 result, would it create a significant hazard to the public or the environment.
5. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
6. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

4.8.4 Impacts Analysis

Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction

Construction of the proposed project would involve the transport of commonly used hazardous substances, such as gasoline, diesel fuel, lubricating oil, grease, and solvents. These materials would be used and stored in designated construction staging areas within the boundaries of the project site, and once the proposed project has been constructed, any remaining materials would be transported off site. These materials would be transported, handled, and disposed of in accordance with all applicable federal, state, and local laws and regulations pertaining to the management and use of hazardous materials. Consequently, use of these materials for their intended purpose would not pose a significant risk to the public or environment. Therefore, construction impacts would be **less than significant.**

Operational

The operational phase of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The proposed project involves residential dwellings with associated landscape and facility maintenance. The open space features of the proposed project would include community gardens, specialty gardens, and agrifields.

Hazardous materials associated with the residential dwellings, associated landscape, and facility maintenance would be limited to private use of commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available substances. Although the proposed project would introduce dwelling

units to the site resulting in an increased use of commercially available potentially hazardous materials, the use of these substances would be subject to all applicable federal, state, and local health and safety laws and regulations that are intended to minimize health risk to the public associated with hazardous materials. More specifically, as stated in Chapter 3, Land Use, of The Farm in Poway Specific Plan (Specific Plan), "All agricultural uses shall comply with the applicable permits and regulations enforced by the California Department of Agriculture and County of San Diego Department of Agriculture" (The Farm in Poway LLC 2020). The agrifields would potentially use commercially available fertilizers, pesticides, and other regulated materials commonly used in agricultural operations. While organic and biodynamic farming practices are preferred, as stated in the Specific Plan, limited use of pesticides may be permitted when other Integrated Pest Management methods have proven to be ineffective. To ensure compatibility of agricultural operations with residential uses, as previously stated, any chemical or pesticide use shall be in compliance with the applicable permits and regulations enforced by the California Department of Agriculture and County of San Diego Department of Agriculture (The Farm in Poway LLC 2020). Additionally, agricultural operations are addressed in the Stormwater Quality Management Plan prepared for the proposed project in January 2020 (Appendix G). Structural best management practice (BMP) recommendations specifically suited to address expected pollutants from agricultural uses and amenities are provided in the Stormwater Quality Management Plan. These regulations and structural BMPs would guide the use of these materials so that a significant hazard to the public or the environment would not occur. Therefore, impacts related to the operational phase of the proposed project would be **less than significant.**

Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction

As mentioned above, the potential materials used during the proposed project construction phase may be deemed hazardous; however the proposed project would be required to follow all federal, state, and local policies regarding the use, transportation, and removal of these products. Additionally, in the event of a reasonably foreseeable upset and accident regarding the release of hazardous materials, procedures and policies would be followed to remove the materials in a safe and timely manner. The State of California Office of Emergency Services provides a Hazardous Material Incident Contingency Plan, which outlines the procedures and responsibilities of agencies and private organizations concerning hazardous materials emergencies (CalOES 1991).

The golf course was constructed in 1962. Therefore, many of the structures onsite have the potential to contain asbestos-containing materials, lead-based paint, and universal wastes; and electrical components, such as transformers, could contain polychlorinated biphenyls (PCBs). Should demolition or alteration occur without proper identification and abatement of these hazardous building materials, this could pose a significant hazard to the public or environment (**Impact HAZ-1**). Prior to demolition or renovation of these structures, survey for, and abatement of, any hazardous building materials would be required to incorporate mitigation measures in accordance with **MM-HAZ-1**.

By following the appropriate procedures and policies outlined in the Hazardous Material Incident Contingency Plan (CalOES 1991), and following the procedures outlined in MM-HAZ-1, the impact of a hazardous materials accident to the environment during proposed project construction would be **less than significant with mitigation**.

Operational

During the operational phase of the proposed project, hazardous materials associated with the residential dwellings, associated landscape, and facility maintenance would be limited to private use of commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available substances. The reasonably foreseeable likelihood that an accident or upset would occur is very low, and it is assumed that there would not be a significant hazard to the public or the environment. As stated above, to ensure compatibility of agricultural operations with residential uses, any chemical or pesticide use shall be in compliance with the applicable permits and regulations enforced by the California Department of Agriculture and County of San Diego Department of Agriculture (The Farm in Poway LLC 2020). Additionally, agricultural operations are addressed in the Stormwater Quality Management Plan (Appendix G). Structural BMP recommendations specifically suited to address expected pollutants from agricultural uses and amenities are provided in the Stormwater Quality Management Plan. These regulations and structural BMPs would guide the use of these materials so that a significant hazard to the public or the environment would not occur. Therefore, this impact would be **less than significant.**

Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Painted Rock Elementary School is located at 16711 Martincoit Road, approximately 0.16 miles south of the project site. Thus the project site is within one-quarter mile of the elementary school and analysis is provided below.

Construction Impacts

Construction of the proposed project would entail transport, use, or disposal of potentially hazardous materials including, but not limited to, diesel fuel, gasoline, equipment fluids, concrete, cleaning solutions and solvents, paints, lubricant oils, adhesives, dust, human waste, and chemical toilets. Direct impacts to human health and biological resources from accidental spills of small amounts of hazardous materials from construction equipment during proposed construction could occur with the transport, use, or disposal of these materials. However, existing federal and state standards are in place for the handling, storage, and transport of these materials and would be implemented during construction of the proposed project (as described in Section 4.8.2, Relevant Plans, Policies, and Ordinances). Additionally, implementation of **MM-HAZ-1** would occur prior to demolition or renovation of existing structures, thereby properly managing potential emissions of hazardous building materials (asbestos, lead-based paint, PCBs) from the project site. Impacts to nearby schools as a result of construction would be **less than significant with mitigation**.

Operational Impacts

Once operational, hazardous materials associated with the residential dwellings, associated landscape, and facility maintenance would be limited to private use of commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available substances. Although the proposed project would introduce dwelling units to the site resulting in an increased use of commercially available potentially hazardous materials, the use of these substances would be subject to all applicable federal, state, and local health and safety laws and regulations that are intended to minimize health risk to the public associated with hazardous materials.

The agrifields would potentially use commercially available fertilizers, pesticides, and other regulated materials commonly used in agricultural operations. While organic and biodynamic farming practices are preferred, as stated in the Specific Plan, limited use of pesticides may be permitted when other Integrated Pest Management methods have proven to be ineffective. As stated above, to ensure compatibility of agricultural operations with residential uses, any chemical or pesticide use shall be in compliance with the applicable permits and regulations enforced by the California Department of Agriculture and County of San Diego Department of Agriculture (The Farm in Poway LLC 2020). Additionally, agricultural operations are addressed in the Stormwater Quality Management Plan (Appendix G). Structural BMP recommendations specifically suited to address expected pollutants from agricultural uses and amenities are provided in the Stormwater Quality Management Plan. These regulations and structural BMPs would guide the use of these materials so that a significant hazard to the public or the environment would not occur.

Although the project site is within one-quarter mile of a school, by following federal, state, and local policies regarding hazardous waste transportation and removal during operation, as well as the localized private nature of hazardous waste during operation, the proposed project would have a **less-than-significant** impact on the existing school, Painted Rock Elementary.

Would the project 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, would it create a significant hazard to the public or the environment?

As discussed in Section 4.8.1, Existing Conditions, a former LUST case is located at the southwest corner of the project site, as shown on Figure 4.8-1. While this case received regulatory closure from the San Diego RWQCB, MTBE contamination was allowed to remain in groundwater on the project site (**Impact HAZ-2**). The closure letter included the following advisories, should the property be redeveloped (San Diego RWQCB 2015):

1. Any land use changes for the site may require reevaluation to determine of the changes pose an unacceptable risk to public health;
2. Any contaminated soil encountered or excavated as part of future subsurface construction/utility work must be managed in accordance with all applicable legal and regulatory requirements; and
3. All future construction on the project must include post construction best management practices to control stormwater runoff in compliance with the US EPA Guidance Document: "Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act."

In addition to the Workplan for residential development of the project site (Geocon 2017), the San Diego RWQCB requested additional measures to be implemented in the Workplan, and requested a Soil Management Plan for excavation and management of soils near the former underground storage tank area (McClain 2017).

Advisories 2 and 3 of the closure letter require management of excavated soils and stormwater in accordance with applicable federal, state, and local laws and regulations, which are also outlined in Section 4.8.2. However, assessment and management of potentially contaminated soils, groundwater, and soil vapor would require mitigation measures in accordance with **MM-HAZ-2**. Following implementation of these measures, impacts would be **less than significant with mitigation.**

Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City does not currently have an adopted evacuation response plan or emergency evacuation plan; however they do include information on the City's website regarding personal preparation during an emergency (City of Poway 2019c). This information is related to personal planning before an emergency occurs, as well as the specific details of where to meet with separated family members during an emergency and responding to law enforcement and fire officers.

The PFD has necessary turnarounds and turnouts for fire apparatus access roads within the project area to provide access to all structures—all of which conform to the required diameter for turnarounds and turnouts. All new roads in the City—including any that would be constructed as part of the proposed project—must follow PFD's protocol to ensure adequate emergency access (PFD 2013).

Additionally, Section 3.12, Fire Prevention Regulation, of the Specific Plan includes the following policies regarding fire access roadways (The Farm in Poway LLC 2020):

- Fire apparatus access roads shall have an unobstructed, improved width of not less than 20 feet, except single-family residential driveways serving no more than two improved parcels containing dwelling units shall have a minimum of 16 feet of unobstructed improved width. Vertical overhead clearance shall be a minimum of 13.5 feet. Fire apparatus access roads and driveways shall be designed and maintained to support the imposed loads of fire apparatus not less than 75,000 pounds unless authorized by the Poway Fire Department and shall be provided with an approved paved surface as to provide all-weather driving capabilities. When deemed necessary in the opinion of the fire code official, a paved driving surface shall mean asphalt or concrete surface. The turning radius of a fire apparatus access road shall be a minimum of 28 feet as measured to the inside edge of the improvement width or as approved by the fire code official.

- Fire access roadways, gated entrances with card readers, guard stations, or center medians, which have separated lanes of one-way traffic shall be not less than 12 feet wide per lane.

- For all non-residential facilities or buildings, approved fire apparatus access roadways shall be provided for every facility, building or portion of a building. The fire apparatus access roadway shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

- The gradient for a fire apparatus access roadway shall not exceed 20 percent. Grades exceeding 15 percent (incline or decline) shall be constructed of Portland cement concrete (PCC), with a deep broom finish perpendicular to the direction of travel, or equivalent, to enhance traction. The fire code official may require additional mitigation measures where he or she deems appropriate.

- The angle of departure and the angle of approach of a fire access roadway shall not exceed seven degrees (12 percent) or as approved by the fire code official.

- All dead-end fire access roads in excess of 150 feet in length shall be provided with approved provisions that allow emergency apparatus to turn around. For these fire access roads in excess of 150 feet in length, a cul-de-sac shall be provided in residential areas where the access roadway serves more than two structures. The minimum, unobstructed paved radius width for a cul-de-sac shall be 38 feet in residential areas.

- All gates or other structures or devices that could obstruct fire access roadways or otherwise hinder emergency operations are prohibited unless they meet the standards approved by the fire code official and receive Specific Plan approval. All automatic gates across fire access roadways and driveways shall be equipped with approved, emergency, key-operated switches overriding all command functions and opening the gate(s). Gates accessing more than four residences or residential lots, or gates accessing hazardous institutional, educational or assembly occupancy group structures shall also be equipped with approved emergency traffic control-activating strobe light sensor(s), or other devices approved by the fire code official, which will activate the gate on the approach of emergency apparatus with a battery backup or manual-mechanical disconnect in case of power failure. In the event of a power failure, the gate shall be automatically transferred to a fail-safe mode allowing the gate to be manually pushed open without the use of special knowledge or equipment. All automatic gates must meet fire department policies deemed necessary by the fire code official for rapid, reliable access. Where this section requires an approved key-operated switch, it shall be dual keyed or dual switches shall be provided to facilitate access by law enforcement personnel.

The Specific Plan's circulation and development standards have been designed with consideration of natural and other disasters that may occur by providing adequate access for emergency services, evaluating adequacy of emergency services to provide service to the increased population, and reducing the risk of fire and other potential emergencies through design and maintenance standards. Further, as stated in the Specific Plan, any gages, structures, or devices that could obstruct fire access roadways or otherwise hinder emergency operations would be prohibited unless they meet the standards approved by the Fire Code official and receive appropriate building and planning permits from the City (The Farm in Poway LLC 2020). See also Section 4.17.4 of this EIR for potential impacts related to wildfire.

Further, the proposed project would result in increased access to Espola Road, thereby enhancing emergency egress and ingress in the event of an emergency or evacuation. Residents within the vicinity of the proposed project would have increased pedestrian accessways and bikeways, as well as a new road that connects at Martincoit Road and Espola Road. Also, PFD Fire Station 2 is less than one-half mile from the project site, fronting Espola Road. Thus, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore the proposed project's impact would be a **less than significant.**

Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

A relatively small area in the northeast portion of the project site is located within a Very High Fire Hazard Area (CAL FIRE 2009; The Farm in Poway LLC 2020). That area has a R-H land use designation and all proposed homes within that area would be subject to the R-H development standards. Development standards for the R-H land use district reflect the fire hazard designation in this area and include additional setback and building standards. However, a majority of the project site is not adjacent to wildlands, has been previously developed, and is located in an area surrounded by residential uses. Compliance with all applicable existing laws, regulations, and policies would reduce impacts associated with wildland fires. The proposed project would also be subject to all of the requirements and recommendations of The Farm in Poway FMP (Appendix L). As discussed therein, compliance with the FMP would significantly reduce the probability of flame impingement from wildfires burning on the adjacent development and undeveloped properties, and of structure loss due to the onslaught of airborne embers (Appendix L). See Table 4.0, Table of Required Actions, in Appendix L for additional information.

The proposed project would also be required to pay a fire protection impact fee per dwelling unit, which would ensure fire response times are adequately met throughout the City (Section 105.3.9 in City of Poway 2019b). Additionally, the proposed project would incorporate site design, maintenance practices, fuel modification zones, and fire resistant landscaping to protect properties and reduce risks, consistent with the General Plan, Chapter 15 of the City's Municipal Code, the FMP, and Section 3.12 of the Specific Plan. Further, as previously described, the proposed project would result in increased access to Espola Road by providing additional pedestrian accessways and bikeways and a new road that connects at Martincoit Road and Espola Road—thereby enhancing emergency egress and ingress in the event of an emergency or evacuation. Also, PFD Fire Station 2 is less than one-half mile from the project site, fronting Espola Road. Therefore, impacts would be **less than significant**. For additional information regarding wildfires, see Section 4.17, Wildfire, of this EIR.

The proposed project's impacts as related to hazards and hazardous materials are listed as follows:

Impact HAZ-1 Many of the structures on the project site have the potential to contain asbestos-containing materials, lead-based paint, and universal wastes; and electrical components, such as transformers, which could contain PCBs. Should demolition or alteration occur without proper identification and abatement of these hazardous building materials, this could pose a significant hazard to the public or environment.

Impact HAZ-2 A former LUST case is located at the southwest corner of the project site. While this case received regulatory closure from the San Diego RWQCB, MTBE contamination was allowed to remain in groundwater on the project site. Contaminated groundwater could pose a significant hazard to the public or environment should the site be redeveloped.

4.8.5 Cumulative Impacts

The geographic scope of the cumulative impact analysis for hazards and hazardous materials is limited to projects within the City limits (see Figure 3-11, Cumulative Projects, and Table 3-2, Cumulative Projects). Cumulative impacts related to hazards and hazardous materials would result from projects within the City that combine and increase exposure to hazards and hazardous materials. Cumulative projects with the potential to increase exposure include St. Bartholomew's Episcopal Church, Liguori Ranch, and the Vista Madera's Subdivision.

Hazardous Materials

Hazardous soils, underground storage tanks, and other existing sources of hazardous materials are generally site specific and handled on a project-by-project basis. The cumulative projects identified in Table 3-2 would be expected to have little effect on the exposure to, or the chances of, release of hazardous materials because proposed land uses associated with the cumulative projects do not typically involve large quantities of potentially hazardous materials. Further, cumulative projects would be required to comply with all applicable federal, state, and local standards regarding the handling, use, transportation, storage, and disposal of hazardous materials, which are intended to minimize the risk to public health and the environment. As such, **the proposed project would not result in a cumulatively considerable impact** related to the transportation, use, or storage of hazardous materials or related to a hazardous materials site.

Schools

The potential to handle or emit hazardous materials within one-quarter mile of a school is generally site specific. The proposed project would not result in construction or operational impacts to Painted Rock

Elementary School due to existing federal, state, and local policies in place for the handling, storage, and transport of these materials. Additionally, implementation of **MM-HAZ-1** would occur prior to construction to properly managing potential emissions of hazardous building materials (asbestos, lead-based paint, PCBs) from existing structures on the project site. Finally, none of the cumulative projects identified in Table 3-2 are within one quarter mile of Painted Rock Elementary School. Therefore**, the impact on schools would be less than significant and not cumulatively considerable**.

Emergency Response/Emergency Evacuation Plans

Cumulative projects within the City would be required to comply with applicable emergency response and evacuation policies outlined in regulations such as the Federal Response Plan, the California Emergency Services Act, local fire codes, and regional/jurisdictional emergency response and evacuation plans. Due to existing regulations, cumulative projects would not result in a significant cumulative impact associated with the implementation of emergency response and evacuation plans. The proposed project's construction would take place entirely on the project site, and existing access for emergency service providers would be maintained during the entire construction phase and enhanced after development of the project is complete. Additionally, the proposed project would not cause hazards to emergency response to aircrafts as no structures over 100 feet tall are proposed. Thus, the proposed project **would not contribute to a cumulative impact** to emergency response plans or emergency evacuation plans.

Wildland Fires

The potential for wildland fires resulting in the loss of life or property is generally unique to each site. All cumulative projects are subject to the fire codes and regulations and, with some projects, the preparation of Fire Protection Plans to determine the potential risk for wildland fires. Similar to the proposed project, other cumulative projects would be required to include such features as fuel modification zones, fire access roads, and fire hydrants to reduce the risk of potential wildland fires. Further, the proposed project would result in increased access to Espola Road by providing additional pedestrian accessways and bikeways and a new road that connects at Martincoit Road and Espola Road—thereby enhancing emergency egress and ingress in the event of an emergency or evacuation. Also, PFD Fire Station 2 is less than one-half mile from the project site, fronting Espola Road. Any project in a given area cannot be approved unless it is determined to meet the fire codes (e.g., fire retardant roof materials, increased setbacks, fire sprinklers on structures) and regulations for the fire authority having jurisdiction over the cumulative projects. The project site has been previously developed, and is located in an area surrounded by residential uses. Through the proposed project's compliance with the FMP and Specific Plan policies related to fire protection the potential **cumulative impacts from wildland fires would be less than significant.**

4.8.6 Mitigation Measures

MM-HAZ-1 Prior to demolition or renovation of project site structures that were built before 1980, a hazardous building materials survey shall be conducted by a California Department of Public Health (DPH) Certified Asbestos Consultant and/or Certified Site Surveillance Technician and a California DPH Certified Lead Inspector/Risk Assessor or Sampling Technician. A report documenting material types, conditions and general quantities will be provided, along with photos of positive materials and diagrams. Demolition or renovation plans and contract specifications shall incorporate any abatement procedures for the removal of material containing asbestos, lead-based paint, universal wastes and/or polychlorinated biphenyl (PCB)-containing equipment. All abatement work shall be done in accordance with federal, state, and local regulations, including those of the U.S.

Environmental Protection Agency (which regulates disposal), Air Pollution Control District, Occupational Safety and Health Administration, U.S. Department of Housing and Urban Development, California Occupational Safety and Health Administration (which regulates employee exposure), and the South Coast Air Quality Management District.

MM-HAZ-2 The San Diego Regional Water Quality Control Board (San Diego RWQCB) is the regulatory agency in charge of the former leaking underground storage tank (LUST) case on the project site. Prior to construction or excavation activities in the area of the former LUST, San Diego RWQCB will be consulted regarding requirements necessary to meet the advisories of the LUST closure letter and requirements for residential development in order to protect human health and the environment. Requirements set forth by the San Diego RWQCB will be implemented prior to excavation and development of the project site. An example of these requirements may include participation in the County of San Diego Department of Environmental Health Voluntary Assistance Program and a soils management plan prepared by a Geotechnical Engineer or Geologist.

4.8.7 Level of Significance After Mitigation

As discussed in this section, impacts associated with potential on-site hazardous materials would be mitigated with implementation of MM-HAZ-1 and MM-HAZ-2. Additionally, the proposed project would comply with all federal, state, and local policies and protocols mandating safe practices for use, transport, disposal, and accidents, and thus would not create a significant hazard to the public from routine transport, use, or disposal of hazardous materials. Finally, emissions and handling of hazardous or acutely hazardous materials within one-quarter mile of Painted Rock Elementary School would be monitored and required to follow all legislative policies and procedures.

Upon compliance with MM-HAZ-1 and MM-HAZ-2, all impacts related to hazards and hazardous materials would be **less than significant**.

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SOURCE: SANGIS 2017, 2019

DUDEK

0 250 500 Feet

FIGURE 4.8-1

Project Site Hazards

The Farm in Poway

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4.9 Hydrology and Water Quality

This section describes the existing hydrology and water quality conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. This analysis is based on the review of existing resources; technical data; applicable laws, regulations, and guidelines; as well as the following technical reports prepared for the proposed project:

- Drainage Study for The Farm at Poway, prepared by Hunsaker & Associates in January 2020 (Appendix F to this Environmental Impact Report [EIR])
- Priority Development Project – Stormwater Quality Management Plan, prepared by Hunsaker & Associates in January 2020 (Appendix G to this EIR)

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to hydrology and water quality focused on the following topics:

- Drainage patterns
- Wastewater quality
- Drinking water quality

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.9.1 Existing Conditions

Hydrology

The site drains in a general southern direction with the exception of the northern portion of the site. Currently, the project site has three total concrete brow ditches that convey on-site and off-site flows to two separate outflow locations—one to the north and one to the south. An existing brow ditch conveys off-site flows from St. Andrews Drive and flows from the southern portion of the StoneRidge Country Club south through the site discharging into a triple arch culvert beneath Espola Road. Flows from Tam O'Shanter Drive and Cloudcroft Court are also conveyed southerly through the project site, and are discharged into the same triple arch culvert beneath Espola Road as described above. In the northern portion of the project site, flows from Boca Raton Lane flow into a brow ditch and are routed to a pipe that conveys the flow underneath Valle De Lobo Drive and Villamoura Drive, eventually discharging into the open space near Glen Arven Lane. The project site north of Tam O'Shanter Drive drains in a northerly direction, eventually discharging into Sycamore Creek. The southerly part of the project site flows towards Espola Boulevard, meeting flows from Tam O'Shanter and St. Andrews Drive before entering the existing storm drain system. Southerly flows are eventually discharged into the Los Peñasquitos 906 Watershed.

The City of Poway Department of Public Works Storm Water and Flood Control Division manages and maintains the stormwater drain lines within the City to collect stormwater runoff and help prevent flooding of developed areas. The City is located within two watershed areas, Los Peñasquitos Watershed, which covers 61.7 percent of the City, and San Dieguito Watershed, which covers the remaining area. The proposed project would fall within the San Dieguito Watershed; however, southerly flows from the project site travel to the Los Peñasquitos 906 Watershed.

Water Quality

The City's strategy and policy direction is to reduce discharges of pollutants into the stormwater conveyance system through implementation of best management practices (BMPs). In 2015, the City adopted the City of Poway Jurisdictional Runoff Management Program, which includes implementation of BMP requirements, water quality monitoring, educational outreach, municipal maintenance procedures, and inspection and enforcement programs (City of Poway 2015). The City conducts annual storm drain facility rehabilitation and replacement projects as needed. Development projects throughout the City are required to implement site-specific storm drain improvements and contribute fees toward regional improvements.

Stormwater runoff collected from the project site may contain high sediment loads and many types of pollutants, including oil and grease, chemicals, pesticides, heavy metals, bacteria, viruses, and oxygen-demanding compounds. The primary method for treating stormwater from the project site involves a series of bioretention basins, as described above. Stormwater from the project site is collected and conveyed to these basins via a series of private catch basins and pipes located within private streets. Once collected, the bioretention basins are designed to slow the velocity and volume of water, a process called hydromodification, and treat stormwater through various processes collectively referred to as bioretention. Hydromodification is important to protecting stormwater quality by preventing flooding, sedimentation, and erosion downstream. Flooding of areas that are normally dry can result in chemicals, fuel, trash, bacteria and other potential pollutants entering the natural drainage system. Sedimentation and erosion can also damage the environment by altering the physical characteristics of water bodies that provide habitat for plant and animal species. Biofiltration is important to protecting stormwater quality by removing potential pollutions within water prior to leaving the site.

Groundwater

The project site is not located within a known groundwater basin. The nearest groundwater basin to the project site is Poway Valley Groundwater Basin (PVGB), located approximately 2.5 miles south (SanGIS 2007). A Geologic Reconnaissance for the proposed project was prepared by Geocon Inc. in April 2019, and included as Appendix E to this EIR. No groundwater or seepage was observed on the project site during the geologic reconnaissance (Appendix E). However, groundwater levels in the constructed ponds and drainage areas existing on site can be expected to fluctuate seasonally and could affect grading of the site if the alluvial areas extend into the development footprint.

Flooding

Flood zones are areas that the Federal Emergency Management Agency (FEMA) has defined as a geographic space that has varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map or Flood Hazard Boundary Map. Each respective map annotates different zones that reflect the severity or type of flooding in the area. Although portions of the City are within a FEMA 100-year flood zone, the project site is not located in a 100- or 500- year flood hazard zone (floodway or flood plain). According to the FEMA U.S. Geological Survey map for the proposed project area, the project site is located in Zone X, an area of minimal flood hazard (FEMA 2019).

Dam inundation areas are downstream areas subject to flooding as a result of an uncontrolled release from an upstream reservoir, such as from breaks in levees or dams. The project site is located approximately 3.4 miles south of Lake Hodges in Escondido, approximately 2.5 miles west of Lake Ramona, and approximately 1.7 miles northwest of Lake Poway. The project site is not located within a dam inundation area. No other lakes or large reservoirs are located in the vicinity of the project site.

The project site is located approximately 14 miles inland from the Pacific Ocean, at a minimum elevation of approximately 590 feet above mean sea level. Therefore, the project site would not be subject to inundation by tsunami. The project site is generally gently sloping, with elevations ranging across the site from 590 to 775 feet above mean sea level, respectively. The topography locally undulates where the existing golf fairways and greens were graded for relief; however, no steep slopes, which could be subject to failure, are present on site.

4.9.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Emergency Management Agency

FEMA is the primary federal agency for coordination with communities to establish effective floodplain management standards. FEMA prepares Federal Insurance Rate Maps, which delineate the areas of special flood hazards and applicable risk premium zones. The project site is located in Zone X, an area of minimal flood hazard (FEMA 2019).

Under FEMA, the National Flood Insurance Program aims to reduce the impact of flooding on private and public structures by providing affordable insurance to property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects on flooding on new and improved structures. Overall, the program reduces the socio-economic impact of disasters by promoting the purchase and retention of general risk insurance, but also of flood insurance specifically.

Clean Water Act

The Clean Water Act is the principal federal law for the regulation of water quality. The Clean Water Act includes water quality standards, discharge limitations, and required permits. The fundamental purpose of the Clean Water Act is the protection of designated beneficial uses of water resources. The 1987 amendments to the Clean Water Act includes provisions prohibiting discharges of pollutants contained in stormwater runoff and requires many cities to obtain a National Pollutant Discharge Elimination System (NPDES) permit to control urban and stormwater runoff.

Section 303(d) of the Clean Water Act defines water quality standards as consisting of both the uses of surface waters (beneficial uses) and the water quality criteria applied to protect those uses (water quality objectives). The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) have been charged with ensuring that beneficial uses and water quality objectives are established for all waters of the state.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Porter–Cologne Water Quality Control Act

This legislation establishes the responsibilities and authorities of the state's nine RWQCBs and the SWRCB. In California, all surface waters and groundwater are considered to be "waters of the state" under this Act. The nine RWQCBs are semi-autonomous and are comprised of seven part-time Board members, appointed by the Governor and confirmed by the Senate. Regional boundaries are based on watersheds, and water quality requirements are based on the unique differences in climate, topography, geology, and hydrology for each watershed. Each RWQCB makes critical water quality decisions for its region, including setting standards, issuing permits (i.e., waste discharge requirements), determining compliance with those requirements, and taking appropriate enforcement actions. The project site is located with RWQCB Region 9, which includes San Diego, Imperial, and Riverside counties. The SWRCB protects water quality by setting statewide policy, coordinating and supporting the RWQCB efforts, and reviewing petitions that contest RWQCB actions.

Sustainable Groundwater Management Act of 2014

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package 2014 (Assembly Bill 1739, Senate Bill 1168, and Senate Bill 1319) known as the Sustainable Groundwater Management Act of 2014. The legislation provides a framework for sustainable management of groundwater supplies by local authorities in high- and medium-priority alluvial basins, as designated by the SWRCB. The groundwater sustainability agency, which can be a county, city, or water district, must be formed by June 30, 2017, and prepare a groundwater sustainability plan by January 31, 2022 (or January 31, 2020, for critically overdrafted basins). Each plan requires implementation measures to bring each basin into sustainability within 20 years of implementation of the plan. In San Diego County, four basins require plans, specifically the San Diego River Valley Basin, the San Pasqual Valley Basin, the San Luis Rey River Basin, and the Borrego Valley Basin (all medium-priority basins).

Geologic and soil conditions in the City are not conducive to the replenishment of the limited groundwater supply that exists. Therefore, the City has existed and grown on imported water after the establishment of the Poway Municipal Water District. However, some areas of the City are not served by the community water system. The foothill and mountain areas of the eastern portion of the City must rely on groundwater pumped from wells to use for potable water and to irrigate agriculture (City of Poway 1991).

Construction General Permit

As stated in Poway City Municipal Code Chapter 13.09.070-3, runoff at significant construction sites in the City of Poway City are subject to any NPDES permit, and shall comply with such permit, which is: SWRCB, Division of Water Quality, NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2010-0014-DWQ, NPDES No. CAS000002 (City of Poway 2018a). This General Permit authorizes discharges of stormwater associated with construction activity so long as the dischargers comply with all requirements, provisions, limitations, and prohibitions in the permit. This General Permit authorizes discharges of pollutants in stormwater associated with construction activity to waters of the United States from construction sites that disturb one or more acres of land surface, or are part of a common plan of development or sale that disturbs more than one acre of land surface. The NPDES permit must require implementation of Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate pollutants in stormwater runoff (SWRCB 2018).

Local

The Water Quality Control Plan for the San Diego Basin (Basin Plan)

The SWRCB carries out the regulation, protection, and administration of water quality within the state. The state is divided into nine regions for the purposes of regional administration of California's water quality control program, and each region has its own RWQCB. The Water Quality Control Plan for the San Diego Basin (Basin Plan) designates beneficial uses for water bodies in the San Diego region, and establishes water quality objectives and implementation plans to protect those beneficial uses.

Any change to the Basin Plan requires a Basin Plan Amendment. All Basin Plan amendments are subject to a full public participation and hearing process prior to adoption by the San Diego RWQCB. Basin Plan amendments also much be approved by the SWRCB, Office of Administrative Law, and in many cases, the U.S. Environmental Protection Agency. Basin Plan amendments become effective and are added to the Basin Plan document after final approval by the Office of Administrative Law and/or the U.S. Environmental Protection Agency, as applicable. State and federal laws require periodic review and update of the Basin Plan.

Municipal Separate Storm Sewer Systems Permit

In an effort to protect and enhance local creeks, the City implements water quality improvement and runoff management in compliance with the RWQCB's Order No. R9-2013-0001 as amended (the Municipal Separate Storm Sewer Systems [MS4] Permit) (San Diego RWQCB 2018). The City enforces Chapter 22 of the Municipal Code in accordance with the MS4 permit and implementation of a Jurisdictional Runoff Management Program, and collaborates with other jurisdictions to implement and update Water Quality Improvement Plans on a watershed basis.

County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance

The County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO), effective February 26, 2016, contains discharge prohibitions and requirements that vary depending on type of land use activity proposed and location within the County. The intent of the WPO is to protect water resources and improve water quality through the uses of management practices aimed at reducing polluted runoff. The requirements of the WPO are specifically intended to implement a Jurisdictional Runoff Management Program in accordance with California RWQCB amended Order No. R9-2013-0001, NPDES No. CAS0109266 (County Public Works 2017).

The WPO is generally only implemented in unincorporated areas of the County (County Public Works 2017). However, because the WPO is intended to prevent surface water quality impacts to County stormwater conveyance systems, and project runoff would flow downstream through such County conveyance systems, the WPO would be applicable to the proposed project. The proposed project meets the requirements of a WPO Priority Development Plan under WPO Section 67.8111, Additional Planning, Design and Post-Construction Requirements for Development Projects, Part (b) Additional Requirements for Priority Development Projects, due to the amount of proposed impervious surfaces relative to the amount of existing pervious surfaces.

City of Poway Jurisdictional Runoff Management Program

On May 8, 2013, the San Diego RWQCB, adopted an updated NPDES Municipal Permit, Order No. R9-2013-000, as amended by Order No, R9-2015-001. The Municipal Permit regulates the discharges into stormwater conveyance systems within 18 Municipalities in San Diego County. Each co-permittee, including the City, were required to develop a comprehensive Jurisdictional Urban Runoff Management Program. The City developed the Jurisdictional Runoff Management Program (JRMP) in response to the permit order. The City's approach to following the permit entailed reducing discharges of pollutants to the stormwater conveyance system within the City, by means of BMPs. Major components of the JRMP include the implementation of BMP requirements, water quality monitoring, educational outreach efforts, municipal maintenance procedures, and water quality monitoring procedures.

City of Poway Municipal Code – Chapter 13.09 – Stormwater Management and Discharge Control

The purpose of Chapter 13.09 of the City's Municipal Code is to establish requirements for discharges into the stormwater conveyance system, receiving waters, and the environment, to protect the stormwater conveyance system from damage, and to meet the requirements of State and Federal law and the MS4 Permit. The chapter also states that BMPs are required for all dischargers. The following requirements regarding BMPs will apply (City of Poway 2018a):

1. Every responsible person as defined in Chapters 1.08 and 1.10 PMC [Poway Municipal Code] undertaking any activity or use of premises that may cause or contribute to stormwater pollution or contamination, illegal discharges, or non-stormwater discharges to the stormwater conveyance system shall comply with BMP guidelines or pollution control requirements, as may be established by the authorized enforcement official. BMPs shall be maintained routinely throughout the life of the activity. Such BMPs include the minimum BMPs set forth in the BMP Manual.
2. An authorized enforcement official may require any business or operations that are engaged in activities which may result in pollutant discharges to the stormwater conveyance system to develop and implement an SWPPP [Stormwater Pollution Prevention Plan], which must include an employee training program and the applicable minimum BMPs from the BMP Manual.
3. Each discharger that is subject to any NPDES permit shall comply with all requirements of all such permits. The discharger must also make reports submitted to the RWQCB or other permitting agency, including monitoring data, available to the City upon request.
4. Parties undertaking land disturbance activities shall comply with all applicable requirements of this chapter, the BMP Manual, and Division III of PMC Title 16 (Chapters 16.40 through 16.54 PMC).
5. Parties undertaking land development and redevelopment activities shall comply with all applicable requirements of this chapter and the BMP Manual.

Poway Comprehensive Plan: General Plan

The Poway Comprehensive Plan: General Plan (General Plan) includes the following policies and strategies regarding hydrology and water quality (City of Poway 1991):

Goal I: It is the goal of The City of Poway to preserve Poway's unique and desirable character as "The City in the Country" and to maintain high quality design and environmental standards in all new development and redevelopment.

Policy D, Grading – Necessary grading should be done so as to minimize the disturbance to the site and the environmental and aesthetic impacts.

- Strategy 1: Mass grading of custom residential subdivision lots in hillside areas is prohibited.
- Strategy 2: Grading in hillside areas shall leave rounded off natural appearing slopes and shall use a variable slope ratio instead of manicured cut and fill areas. Grading shall be limited to that required for building pad placement and for driveways and utility lines.
- Strategy 3: To the extent possible cut slopes should be concealed by the structure.
- Strategy 4: All exposed graded slopes shall be revegetated with plant materials compatible with surrounding vegetation.
- Strategy 5: Land should be graded and landscaped in workable increments to avoid exposing expanses of bared earth at any given time.
- Strategy 6: Topsoil removed during grading should be retained and replaced on the landscaped areas of the building site to minimize the grading and removal of top soil from other locations.
- Strategy 7: Long term erosion shall be controlled by vegetation replanting or erosion control materials as well as the installation of proper drainage control devices where necessary.
- Strategy 8: Soils having a high or moderate permeability capacity or rate should be left in their natural state to reduce run off and encourage groundwater recharge.

Goal IV: It is the goal of the City of Poway to preserve its natural, scenic, and cultural resources for the future benefit and enjoyment of its residents and to protect biological and ecological diversity.

Policy B, Waterways – The natural character of creeks and channels should be maintained or restored to the greatest extent possible with consideration for maintaining adequate flood protection.

- **Strategy 1:** Development including roads should be set back from riparian corridors a minimum distance of 50 feet or a sufficient distance as determined by a qualified biologist to avoid any damage to these areas. These riparian corridors and associated buffer areas should be designated as permanent natural open space easements and the buffer areas should be vegetated only with appropriate native species as determined by a qualified biologist or native plant horticulturist.
- **Strategy 2:** No activity or development shall be permitted within the watershed or viewshed of Lake Poway which would diminish water quality of the lake or its open space and recreational value.
- **Strategy 3:** Natural locations and rates of discharge into creeks and channels should not be increased without sufficient mitigation to ensure that significant alteration of the natural system will not occur.
- **Strategy 4:** The use of rip rap in stream channels shall be limited to the minimum area required to protect adjacent improvements and stream banks from excessive erosion.

- **Strategy 5:** Public access to creeks via trails paths and greenways shall be encouraged to the extent possible without negatively impacting the riparian habitat value.
- **Strategy 6**: Coordinate with other jurisdictions to monitor and maintain acceptable water quality standards in local streams.
- **Strategy 7**: Activities within the City's natural drainage systems which would adversely affect water quality (such as pesticide use construction of septic leach fields and underground storage of hazardous substances) shall be strictly regulated.
- **Strategy 8**: Substances such as hazardous wastes or untreated wastewater shall not be discharged into the City's natural water systems.
- **Strategy 9:** Urban runoff from impermeable surfaces which may be contaminated with oil grease vehicle fuels or other toxic substances shall have such contaminants substantially removed before discharge into the City's natural drainage systems. The City shall comply with the requirements of the nonpoint source urban runoff wastewater discharge permit.
- **Strategy 10**: Grading for development shall not increase the natural rate of erosion or cause siltation of stream channels.

4.9.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to hydrology and water quality are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hydrology and water quality would occur if the project would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    a. result in substantial erosion or siltation on or off site;
    b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
    c. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    d. impede or redirect flood flows.
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

4.9.4 Impacts Analysis

Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The following discussion of water quality impacts is organized into two subsections: (1) short-term construction activities and (2) long-term post-construction activities.

Construction

Proposed demolition, grading, excavation, and construction activities associated with the proposed project could create a substantial additional source of polluted runoff, which could have short-term impacts on surface water quality. Additional sources of polluted runoff could include, heavy metals, organic compounds, trash and debris, oxygen demanding substances, oil and grease, bacteria and viruses, pesticides, sediments, and nutrients could occur as a result of project uses.

Figure 3-8, Conceptual Grading & Drainage Plan, illustrates the proposed grading and drainage concept for the Farm in Poway. Grading of the site respects the existing topography to the extent feasible for implementing the plan and adheres to the PMC Grading Standards. Grading for the site is balanced at 508,900 cubic yards of cut and fill to avoid export or import of dirt. Figure 3-9, Conceptual Cut & Fill Map, highlights how dirt will be redistributed throughout the site. Cut and fill slopes are designed at 2:1 minimum. The cut north of The Club is greater than 30 feet in height (66 feet total) and requires City Council approval.

As illustrated in Figure 3-8, the project site currently accepts stormwater drainage from a number of adjoining properties. To maintain these existing drainage patterns and minimize drainage impacts to existing neighborhoods, a series of public bypass storm drains would be provided to collect this stormwater at The Farm in Poway Specific Plan (Specific Plan) area boundary and convey it through the site to the City's existing storm drain system downstream. The grading plan is designed to drain all stormwater from within the Specific Plan area to swales that convey water to streets or to drain stormwater directly to private streets. Once in the street, stormwater is collected by catch basins and a private system of pipes. These pipes then conveyed water to a series of bioretention basis that release stormwater into the City's existing system via the bypass storm drains described above or via existing ditches, channels, or pipes located adjacent to the Specific Plan area. Issuance of building permits for the proposed project would generally be phased along with the necessary public improvements to support the land uses. Required improvements would include water and wastewater pipelines, public and private roadways, drainage improvements, public trails, public park facilities, and a community recreation center facility. Demolition of the existing clubhouse building and associated structures would occur initially. It is assumed that site-preparation of the project site (i.e., grading, soil import, trenching for dry and wet utilities, and surface improvements) for vertical building construction would follow. Pollutants associated with construction would degrade water quality if those pollutants are washed into surface waters. Sediment is often the most common pollutant associated with construction sites because of the associated earth-moving activities and areas of exposed soil. Hydrocarbons such as fuels, asphalt materials, oils, and hazardous materials such as paints and concrete discharged from construction sites could also result in impacts downstream. Debris and trash could be washed into existing storm drainage channels to downstream surface waters. These activities could impact aquatic habitat, upland wildlife, and aesthetic land values.

Under the NPDES permit program, BMPs are mandated for construction sites in which grading would be greater than one acre, through preparation of Stormwater Pollution Prevention Plans (SWPPPs) in order to reduce the

occurrence of pollutants in surface water. SWPPPs are submitted to the RWQCB prior to ground-disturbing activities and set forth the measures that will be employed during construction to avoid runoff into surface waters. Project temporary construction BMPs would typically include the following: street sweeping, waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, and proper handling and storage of hazardous materials. Typical erosion and sediment control BMPs include silt fences, fiber rolls, gravel bags, temporary desilting basins, velocity check dams, temporary ditches or swales, stormwater inlet protection, and soil stabilization measures. Implementation of these state-mandated measures, and implementation of the required SWPPP for the proposed project, would ensure that short-term impacts from construction-related activities would not violate any water quality standards or waste discharge requirements and not further contribute to water quality impacts identified in the Clean Water Act Section 303(d) List of Water Quality Limited Segments. With implementation of a SWPPP and compliance with applicable water quality requirements, runoff from the project site during construction would not adversely affect surface waters and water quality.

Operation

The clubhouse and all other existing on-site structures would be replaced with the proposed project, as described in Chapter 3, Project Description, of this EIR. The project proposes features such as pools, spas, ponds, decorative fountains, refuse areas, landscaped areas, walkways and parking lots that could potentially result in increased pollutants from the project site. During operation of the proposed project, all on-site runoff would be collected through the proposed internal storm drain system described above, and routed to one of the seven biofiltration basins that would detain and attenuate 100-year peak flows per City design standards. As described above, the drainage basins would be scattered throughout the site at low elevation points within the project site. The northern part of the project site proposes four of these biofiltration bases scattered in different quadrants of the northern loop. The southern portion of the project site proposes two biofiltration basins, while one basin would be in the center of the project site. Additional flows from the agricultural areas will be routed to proposed agricultural basins. Analysis for the agricultural basins will be provided during final engineering.

Hydromodification management flow control, or BMPs, would be implemented in order to reduce potential impacts to water quality. As outlined and recommended in the Stormwater Quality Management Plan (Appendix G), the proposed project would implement source control BMPs, site design BMPs, and priority development project BMPs, which are outlined in Table 4.9-1.

Table 4.9-1. Hydromodification Management Flow Control Best Management Practices

No.	BMP
Source Control BMPs	
SC-BMP-1	Prevention of Illicit Discharge into the MS4 Permit Areas
SC-BMP-2	Storm Drain Stenciling or Signage
SC-BMP-3	Protection of Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal
SC-BMP-4	Additional BMPs for the following areas of concern: Onsite Storm Drain Inlets, Landscape/Outdoor Pesticide Use, Pools, Spas, Ponds, Decorative Fountains and Water Features, Food Service, Refuse Areas, Miscellaneous Drain or Wash Water, Plazas, Sidewalks, and Parking Lots.
Site Design BMPs	
SD-BMP-1	Maintain Natural Drainage Pathways and Hydrologic Features
SD-BMP-2	Conserve Natural Areas, Soils, and Vegetation

Table 4.9-1. Hydromodification Management Flow Control Best Management Practices

No.	BMP
SD-BMP-3	Minimize Impervious Areas
SD-BMP-4	Minimize Soil Compaction
SD-BMP-5	Impervious Area Dispersion
SD-BMP-6	Runoff Collection
SD-BMP-7	Landscaping with Native or Drought Tolerant Species
SD-BMP-8	Harvesting and Using Precipitation
PDP BMPs	
PDP-BMP-1	Biofiltration, which will include the installment of six bio filtration basins which serve the purpose of pollutant and hydromodification control at six separate areas within the project site. This BMP would be inspected by a third party inspector post-construction. The final owners of the biofiltration BMP would be the Homeowners Association (HOA). The HOA will maintain this BMP into perpetuity, and fund the maintenance of the BMP through HOA dues.

Source: Appendix G.
Note: SC = source control; BMP = best management practice; SD = site design; PDP = priority development project.

All priority development projects must implement BMPs for stormwater pollutant control. Priority development projects subject to hydromodification management requirements, such as this project, must also implement water pollutant control and flow control for hydromodification management. Both stormwater pollutant control and flow control for hydromodification management can be achieved within the same structural BMPs as outlined above. These BMPs would be verified by the City at the completion of construction, generally through certification by the project owner.

The selection, sizing and preliminary design of stormwater treatment and other control measures in the engineering plan were drafted in compliance with the City's Stormwater Design Manual, which meets the requirements of the San Diego RWQCB Order R9-2013-0001. The proposed basins were designed to capture 1.5 times the required design capture volume. The detention basins would require maintenance by the Homeowners Association to ensure they continue to operate properly into perpetuity. Maintenance includes repairing erosion, removing sediment and trash, mowing and managing vegetation, and ensuring filters are not blocked and are functioning properly. This maintenance would be intermittently confirmed by the City. Post treatment, stormwater is then released from the basins into bypass pipes which convey existing ditches, channels or pipes that are part of the City's existing storm drain system.

The City's Stormwater Design Manual, which is the jurisdiction-specific BMP manual for the City, addresses updated on-site post-construction stormwater requirements for standard projects and priority development projects, and provides updated procedures for planning, preliminary design, selection, and design of permanent stormwater BMPs based on the performance standards presented in the MS4 Permit and the City's JRMP. All of the proposed biofiltration BMPs would be designed per City specifications and the drainage study recommendations (Appendix F). Hydromodification BMPs must be sized and designed such that post-project runoff conditions, including flow rates and durations, would not exceed pre-development runoff conditions by more than 10 percent for the range of flows that result in increased potential for erosion or degraded instream habitat downstream of the proposed project. As indicated in the project-specific drainage study (Appendix F), this requirement would be met. The proposed biofiltration detention basins and channels would minimize off-site discharge of surface water pollutants while simultaneously preventing downstream flooding-related impacts. The conceptual drainage plan for the project has been designed to provide adequate storm drainage of the property, including detention basins designed to regulate the quantity and quality of stormwater entering the City's storm drain system to prevent flooding downstream.

Agricultural uses are required to limit the use of pesticides and other chemical applications, which could potentially runoff into stormwater systems. The stormwater system is designed to detain and treat any runoff onsite prior to releasing it into the stormwater system.

Based on the proposed project design and applicable requirements, and in particular with the inclusion of the proposed biofiltration detention basins, grading, and design strategies, long-term water quality and stormwater impacts associated with the proposed project would be minimal. Implementation of proposed BMPs, implementation of recommendations in the project-specific drainage study (Appendix F) and Stormwater Quality Management Plan (Appendix G), and preparation and implementation of the required SWPPP would ensure that the proposed project would comply with regulatory ordinances and with the standards set forth in the City's Stormwater Design Manual. Further, potential impacts associated with the use of commercially available fertilizers, pesticides, and other regulated materials commonly used in agricultural operations would be restricted in accordance with applicable state and federal regulations. Finally, tree wells would be designed in accordance with the Stormwater Quality Management Plan to provide water quality treatment for agricultural drainage management areas, which would treat all pollutants of concern generated by these agricultural areas (Appendix G).

For the reasons stated above, both short-term construction impacts, and long-term operational impacts to water quality as a result of project implementation would be **less than significant**.

Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project site is not located within a known groundwater basin (City of Poway 2018b). The nearest groundwater basin is the PVGB, located approximately 2.5 miles south of the project site (SanGIS 2007). PVGB has not been identified as a critically over drafted basin. As of 2018, PVGB is estimated by the State to have over 2,300 acre-feet of groundwater storage (City of Poway 2018b). Groundwater use within the PVGB is very limited. Groundwater is not pumped for municipal water supply in the PVGB and imported water provides for most of the water used in the PVGB. Private domestic wells located in the PVGB serve individual users mainly for irrigation of residential parcels. No active municipal water supply wells or groundwater replenishment projects occur in the Plan area (City of Poway 2018b). Instead, the City receives 99 percent of its water supply from the San Diego County Water Authority in the form of raw water, and then treats the water at Lester J. Berglund Water Treatment Plant, which is located in the City, before distributing treated potable water to City residences and businesses. All uses within the project site, including agricultural uses would use water from the City's water distribution system to allow monitoring of groundwater supplies. Existing wells on site would be maintained; however, the use of existing wells is not proposed, and no new wells would be constructed.

According to the Stormwater Quality Management Plan prepared for the proposed project (Appendix G), the proposed project is not located within 10 feet from the bottom of any of the proposed basins. Therefore, the likelihood of polluted stormwater infiltration into any groundwater supplies is considered negligible. In addition to treatment methods within the stormwater system, pollution prevention strategies including proposed best management practices (as outlined in Table 4.9-1, Hydromodification Management Flow Control Best Management Practices), agricultural use strategies, and the required SWPPP would be specifically designed to protect stormwater from potential contamination. Compliance with local and site-specific stormwater regulations and plans would further reduce the potential for contamination of groundwater.

Considering the proposed project would not use groundwater for construction or operational activities, and considering the depth to groundwater underlying the project site, no substantial decrease to groundwater supplies, or substantial interference with groundwater recharge is anticipated as a result of the proposed project. Therefore, impacts to groundwater would be **less than significant**.

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

a. result in substantial erosion or siltation on or off site;

As discussed above, the project site currently accepts stormwater drainage from a number of adjoining properties. The proposed project would include construction of new impervious surfaces such as residential structures, recreational facilities, access roads, sidewalks, driveways and walkways. The proposed drainage improvements and cut and fill changes would respect the existing topography to the extent feasible, and would adhere to the City's Municipal Code Grading Standards. Implementation of the Grading Plan would allow drainage of stormwater from the project site to discharge to swales on site that would convey water to streets or to drain stormwater directly to private streets. Once in the street, stormwater is collected by catch basins and a private system of pipes. These pipes then convey water to a series of bioretention basis that release stormwater into the City's existing system via the bypass storm drains described above or via existing ditches, channels, or pipes located adjacent to the project site.

The entire property is underlain with soils classified as Hydrologic Soil Group B and C, which are classified as soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission (Appendix G). To reduce the effects of soil erosion and siltation on site, the project proposes to grade the site to a 2:1 ratio (horizontal:vertical), consistent with the surrounding natural topography of the area. The Geologic Reconnaissance (Appendix E) identifies recommended BMPs for grading specifications to ensure that sliding and erosion does not occur on or off site during construction. Additionally, implementation of BMPs outlined in Table 4.9-1, and implementation of the required SWPPP for the proposed project, would ensure that impacts from construction-related activities would not result in substantial erosion or siltation on or off site. Post-construction, proposed landscaping throughout the site, in addition to the proposed drainage improvements would reduce the potential for substantial erosion or siltation. For these reasons, impacts are determined to be **less than significant.**

b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;

As previously described, the majority of the existing property consists of vegetative cover with the exception of associated parking lots, structures, and tennis courts, and the project site currently accepts stormwater drainage from a number of adjoining properties. The project proposes 51 acres of impervious area, and 22.36 acres of pervious area, for a total of 73.36 acres of disturbed area on site. Impervious features include residential structures, access roads, sidewalks, driveways and walkways. Pervious features include biofiltration basins, community gardens, trails, open space, and landscaped area/slopes.

As outlined in Figure 3-8, the proposed drainage improvements would respect the existing topography to the extent feasible, as to minimize drainage impacts to existing neighborhoods surrounding the project site. The proposed drainage improvements would allow drainage of stormwater from the project site to discharge to swales on site that would convey water to streets or to drain stormwater directly to private streets. Once in the street, stormwater is collected by catch basins and a private system of pipes. These pipes would then convey water to one of six bioretention basis that will detain and attenuate 100-year peak flows per City design standards. Post-attenuated flow would then release stormwater into the City's existing system via the bypass storm drains or via existing ditches, channels, or pipes located adjacent to the project site. Additional flows from the agricultural areas on site would be routed to proposed agricultural basins.

The proposed grading changes to the entire site would be in respect of existing topography, pursuant to the City's Municipal Code Grading Standards. The site will be balanced at 508,900 cubic yards of cut and fill to avoid export or import of dirt on site, and all excavated areas would provide positive drainage to prevent ponding of water.

The drainage report prepared for the proposed project (Appendix F), analyzed the 100-year flood flow rates for the proposed drainage basins located within the project site. The Rational Method, which is the most widely used hydrologic model for estimating peak runoff rates, was used to analyze the proposed project's site topography and drainage basin locations at common drainage points (nodes). Table 4.9-2 outlines post-attenuated flows at three common drainage nodes. The attenuation provided by each of the six proposed basins would reduce flow at each of the outfalls when compared to the existing condition.

Table 4.9-2 Summary of Rational Method Hydrologic Analysis

	Existing Condition		Proposed Condition	
Node	*Area (ac)*	*100-Year Peak Flow (cfs)*	*Area (ac)*	*100-Year Peak Flow (cfs)*
100	159.9	258.11	159.7	243.1* (306.47)**
300	91.2	177.11	90.8	175.35* (200.69)**
400	5.4	9.05	5.7	7.13* (25.53)**
Totals	256.5	—	256.2	—

Source: Appendix F
Notes: ac = acres; cfs = cubic feet per second.
* Post-mitigated (attenuated) flow
** Post-condition (unattenuated) flow

The drainage report concluded that the proposed project would not increase runoff in the 100-year storm event because of the on-site flood attenuation provided by the proposed drainage basins (Appendix F). Additionally, since there would be no increase in runoff, there would be no negative impacts to downstream drainage facilities. Furthermore, in compliance with federal and state regulations, as well as municipal guidelines such as the City's JRMP and MS4 permit, the proposed project would incorporate site design, structural, and source control BMPs to help minimize surface runoff and prevent flooding. With implementation of the proposed drainage improvements, and compliance with applicable regulations, the proposed project would not substantially increase the rate of surface runoff such that flooding would occur. Therefore, impacts would be **less than significant**.

c. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

As discussed above, the proposed project plans to create an improved stormwater drainage system in compliance with the City's Stormwater Design Manual, which meets the requirements of the San Diego RWQCB (Appendix G). The proposed method for treating stormwater runoff from the project site involves a series of bioretention basins. Stormwater would be collected and conveyed to these basins via a series of private catch basins and pipes located within private streets. Once collected, the proposed bioretention basins would slow the velocity and volume of water, a process called hydromodification, and treat stormwater through various processes collectively referred to as bioretention. Hydromodification is important to protecting stormwater quality by preventing flooding, sedimentation, and erosion downstream. Biofiltration is import to protecting stormwater quality by removing potential pollutions within water prior to leaving the site. Biofiltration removes pollutants in a variety of ways:

- Evapotranspiration, the process in which water is transferred from the soil by evaporation and from plants by transpiration into the air, leaving pollutants behind.
- Nutrient Cycling, the process in which plants extract nutrients, i.e. organic and inorganic matter that can affect water quality, back into the production of organic matter.
- Filtration through grasses, grates, and screens that remove pollutants.

Once water passes through the bioretention basis, it would be released into the City's existing storm drain system via the bypass storm drains or via existing ditches, channels, or pipes located adjacent to the project site.

As described under the first threshold analysis, under the NPDES permit program, BMPs are mandated for construction sites greater than one acre, through preparation of an SWPPP in order to reduce the occurrence of pollutants in surface water. Implementation of state-mandated measures, proposed BMPs, and implementation of the required SWPPP for the proposed project, would ensure project construction and operational activities would not result in substantial sources of polluted runoff.

As shown in Table 4.9.-1, the attenuated flow rates of the proposed project would have a lower volume than the conditions that currently exist on site. Additionally, since there would be no increase in runoff, project implementation would not result in negative impacts to downstream drainage facilities. Therefore, implementation of the proposed project would not result in runoff that would exceed the capacity of existing storm drain systems, nor cause substantial additional sources of pollution. Therefore, impacts would be **less than significant.**

d. Impede or redirect flood flows?

As described above, the project proposes 51 acres of impervious area, and 22.36 acres of pervious area, for a total of 73.36 acres of disturbed area on site. Impervious features include residential, educational, and recreational structures; access roads; sidewalks; driveways; and walkways. Pervious features include biofiltration basis, community gardens, trails, open space, and landscaped area/slopes. The proposed drainage improvements would respect the existing topography to the extent feasible, as to minimize drainage impacts to existing neighborhoods surrounding the project site. The proposed drainage improvements would allow drainage of stormwater from the project site to discharge to swales on site that would convey water to streets or to drain stormwater directly to private streets. Once in the street, stormwater is collected by catch basins and a private system of pipes. These pipes would then convey

water to one of six bioretention basis that will detain and attenuate 100-year peak flows per City design standards. Post-attenuated flow would then release stormwater into the City's existing system via the bypass storm drains or via existing ditches, channels, or pipes located adjacent to the project site. Additional flows from the agricultural areas on site would be routed to proposed agricultural basins.

The proposed grading and drainage changes would be in compliance with the City's Municipal Code Grading Standards. The planned expansion and continuation of existing drainage patterns would be consistent with surrounding topography and drainage patterns and would not impede or redirect flood flows, therefore the impact is **less than significant.**

In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The project site is located approximately 14 miles inland from the Pacific Ocean and would not be subject to inundation by tsunami. Given that the project site is not located near a large standing body of water (the nearest is Lake Poway, approximately 1.75 miles southeast of the site), inundation by seiche (or standing wave) is considered negligible. As the project site is not located within a flood hazard, tsunami, or seiche zone, the release of pollutants due to project inundation is not anticipated, and **no impact** would occur.

Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As previously discussed, the proposed project would comply with all applicable federal, state, and local policies regarding water quality and groundwater management. The proposed internal drainage system would be pursuant to any existing standards, such as the Poway JRMP, the City's Municipal Code, and City BMPs for water quality management. The proposed biofiltration BMPs would be certified by a third party inspector, and funded and maintained into perpetuity by the proposed project's Homeowners Association (Appendix G).

The project site is not located within or near the PVGB, and therefore would not conflict or obstruct implementation of the City's management plan for the basin (City of Poway 2018b). As the proposed project would not conflict with an applicable water quality control plan or groundwater management plan, impacts would be **less than significant.**

4.9.5 Cumulative Impacts

The cumulative study area for hydrology and water quality would be the boundaries of the Poway Creek Watershed. The proposed project would replace portions of an existing golf course with residences. As a result, the proposed project would increase the amount of impermeable surfaces, which in turn would reduce the ability of the ground surface to absorb potential high intensity surface runoff and surface water pollutants. This increase in impermeable surfaces would be incrementally greater than under existing conditions and could contribute to downstream impacts to Poway Creek. However, the proposed project would retain 22.36 acres of permeable surfaces, which would consist of biofiltration basins, community gardens, trails, open space, and landscaped areas/slopes. The proposed drainage system, in combination with proposed BMPs outlined in Table 4.9-1 would reduce downstream runoff volumes and flow rates to levels less than or equal to existing conditions.

Similar to the proposed project, all cumulative projects would be subject to regulations, policies, and plans established by the City, County of San Diego, and the San Diego RWQCB. Regulations and plans that cumulative projects would be subject to comply with include, NPDES permitting and associated SWPPPs and BMPs; Water Quality Objectives for Inland Surface Waters, established in the Basin Plan; the County of San Diego WPO; Chapter 13 of the City's Municipal Code, regarding grading and stormwater discharges; and applicable General Plan goals and policies (see Section 4.9.2, Relevant Plans, Policies, and Ordinances). Therefore, the proposed project, in combination with identified cumulative projects, would result in **less-than-significant** impacts to cumulative hydrology, water quality, and stormwater/flooding.

4.9.6 Mitigation Measures

No mitigation measures are required, as all impacts are determined to be less than significant.

4.9.7 Level of Significance After Mitigation

Based on the above analysis, impacts related to hydrology, water quality, stormwater, and flooding are determined to be less than significant, and no mitigation is required.

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4.10 Land Use and Planning

The section describes the existing land use and planning conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The analysis is based on the review of existing conditions; applicable laws, regulations, and guidelines; existing community character, surrounding land uses, and compatibility of the proposed project with neighboring areas; and consistency of the proposed project with relevant adopted local land use policies. The Project Consistency with City of Poway General Plan is included in this Environmental Impact Report (EIR) as Appendix H.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to land use and planning focused on the following topics:

- Zoning changes
- Inclusion of more open space
- Preservation of open space
- Proposals of lower density development

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.10.1 Existing Conditions

The project site is designated as "Open Space" in the Poway Comprehensive Plan: General Plan (General Plan), and is currently zoned as "Open Space"– Recreation (OS-R)" (City of Poway 1991).

Surrounding Land Uses

The land uses surrounding the project site consist of single-family and multi-family residential development that includes detached residences on a variety of lot sizes, attached residences of several different densities, and several planned community developments; see Chapter 3, Project Description, Figure 3-10, Surrounding Land Use. The surrounding development consists of mostly single-family homes zoned Residential Single-Family 4 (RS-4), which is intended for 10,000-square-foot lots and maximum densities of four units per acre. A small cluster of residential condominium-zoned (RC) multi-family homes exist along the western edge of the project boundary along Port Marnock Drive, which allows for 12 units per acre. Along the northern portion of the project site, along Villamoura Drive and Villa De Lobo Drive, similar RC zoned multi-family housing is present.

Along Boca Raton Lane, on the northwestern border of the project site, a Residential Single-Family 2 (RS-2) Zone is present and serves as an area for low-density residential uses with minimum lot size of 20,000 square feet and maximum density of two units per net acre. The southern border on Espola Road consists of residential rural zoned homes (RR-C), which allow for very low-density residential uses and minimum lot sizes of one acre and maximum densities of one unit per acre. These density of homes are also found farther west of the project site.

A large area just east of the project site is a large cluster of Planned Community (PC-4) zoning, which is a minimum area of 300 contiguous acres, under single ownership or otherwise subject to unified planning, by

persons, corporations, or other entities. Property owned by public utilities, local districts, or local governments will not be counted toward the 300-acre minimum, but may be used as a connector of single ownership. The zoning within the PC-4 community follows the RS-4 Zone residential requirements within a planned community, which allows for a minimum lot size of 10,000 acres and maximum densities of four units per acre.

Vineyard Hills is located to the west of the project site and is zoned Planned Residential Development (PRD-3). This zone allows for development of areas designated for residential use on the General Plan by permitting greater flexibility and, more creative and imaginative designs for the development of such residential areas than generally is possible under conventional zoning or subdivision regulations. The maximum density of these lots is 12 units per acre, and lot sizes may vary to promote flexibility of development and needs.

The City of Poway is also known as the "City in the Country", and takes pride in its use of larger lots and variety of open space uses. These open space uses generally promote resource management and recreation within the City. Open space uses are present in many places outlying the project site.

4.10.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal policies related to land use that apply to the proposed project.

State

California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is provided in the California Planning and Zoning Law, Government Code Sections 65000 et seq. Under state planning law, each city and county is required to adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning" (Section 65300). The California Supreme Court has called the general plan the "constitution for future development." A general plan expresses the community's development goals and embodies public policy relative to the distribution of future land uses, both public and private. A general plan consists of several elements, including land use, circulation, housing, conservation, open space, noise, and safety; other elements may be included at the discretion of the jurisdiction that relate to the physical development of the county or city.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

Senate Bill 375

Senate Bill 375, the Sustainable Communities and Climate Protection Act, was adopted in September 2008 to coordinate land use planning, regional transportation plans, and funding priorities to reduce greenhouse gas

(GHG) emissions from passenger vehicle travel through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options. Senate Bill 375 consists of five aspects: (1) creation of regional targets for GHG emissions reduction tied to land use; (2) a requirement that regional planning agencies create a Sustainable Communities Strategy (SCS) to meet those targets, even if that plan is in conflict with local plans; (3) a requirement that regional transportation funding decisions be consistent with this new plan; (4) a requirement that the Regional Housing Needs Allocation numbers, established by the State Department of Housing and Community Development and allocated by the San Diego Association of Governments (SANDAG), must conform to the SCS; and (5) new CEQA exemptions and streamlining for projects that conform to the SCS.

Senate Bill 375 specifically requires the metropolitan planning organization relevant to a project area (in this case, SANDAG) to develop an SCS in its Regional Transportation Plan (RTP). The intent of the SCS is to achieve GHG emissions reduction targets set by the California Air Resources Board (CARB) by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

For the area under SANDAG's jurisdiction, including the project site, CARB adopted regional targets for the reduction of mobile source GHG emissions. Those reduction targets are 7 percent for 2020 and 13 percent for 2035, compared with a 2005 baseline. In preparing its 2015 SCS, also known as San Diego Forward: The Regional Plan (Regional Plan), SANDAG stated it would achieve (and exceed) the region's GHG targets, with a 15 percent per-capita reduction by 2020 and a 21 percent per-capita reduction by 2035 (SANDAG 2015). In response, CARB accepted SANDAG's determination that its SCS would achieve its 2020 and 2035 GHG emissions reduction targets.

Local

SANDAG San Diego Forward: The Regional Plan

The SANDAG Board of Directors adopted the final Regional Plan on October 9, 2015. The Regional Plan combines the region's two most important existing planning documents—the Regional Comprehensive Plan and the Regional Transportation Plan and its Sustainable Communities Strategy (RTP/SCS). The Regional Comprehensive Plan, adopted in 2004, laid out key principles for managing the region's growth while preserving natural resources and limiting urban sprawl. The plan covered eight policy areas, including urban form, transportation, housing, healthy environment, economic prosperity, public facilities, our borders, and social equity. These policy areas were addressed in the 2050 Regional Transportation Plan (2050 RTP/SCS) and are now fully integrated into the Regional Plan.

In 2011, SANDAG approved the 2050 RTP/SCS. This approval marked the first time SANDAG's RTP included an SCS, consistent with Senate Bill 375. The 2050 RTP/SCS provided a blueprint to improve mobility, preserve open space, and create communities, all with transportation choices to reduce GHG emissions and meet specific targets set by CARB in 2010, as required by Senate Bill 375. Targets for the San Diego region were 7 percent per-capita GHG emissions reductions for 2020 and 13 percent for 2035, compared with a 2005 baseline. The 2050 RTP/SCS integrates land use and transportation plans to achieve reductions in GHG emissions and meet the CARB-required targets.

Poway Comprehensive Plan: General Plan

The City's General Plan is a statement of what the representatives of the residents want for their community in the future. Its function is to allow the citizens to consciously consider the shape their City will take for the

foreseeable future and to preserve and enhance those qualities they presently find appealing. It accomplishes this by setting forth broad goals, and translating these goals into specific policies and strategies to accomplish the plan's objective. The goals of the City's General Plan are as follows (City of Poway 1991):

1. It is the goal of the City of Poway to preserve Poway's unique and desirable character as "The City in the Country" and to maintain high quality design and environmental standards in all new development and redevelopment.
2. It is the goal of the City of Poway to provide for an orderly balance of both public and private land uses in convenient and compatible locations throughout the city and to ensure that all such uses serve to protect and enhance the environment character and image of the city.
3. It is the goal of the City of Poway to enhance the well-being of Poway residents by providing opportunities for relaxation rest activity and education through a well-balanced system of private and public facilities distributed to serve the entire community.
4. It is the goal of the City of Poway to preserve its natural scenic and cultural resources for the future benefit and enjoyment of its residents and to protect biological and ecological diversity.
5. It is the goal of the City of Poway to achieve a climate for economic growth and stability which will attract high quality commercial and industrial development to serve the employment shopping recreation and service needs of Poway residents and will provide a healthy and diverse economic base for the community.
6. It is the goal of the City of Poway to provide a safe realistic efficient and integrated transportation system to serve the present and future mobility needs of all the residents of Poway.
7. It is the goal of the City of Poway to provide a safe and healthy environment for the residents of Poway.
8. It is the goal of the City of Poway to minimize injuries loss of life and property damage resulting from natural and man-made hazards.
9. It is the goal of the City of Poway to provide an efficient and economical public water and wastewater treatment system to serve the current and future residents of Poway.

The City of Poway Zoning Ordinance

The City of Poway Zoning Ordinance (Zoning Ordinance), as located in Title 17 of the municipal code, is the primary way that the City administers the General Plan. The General Plan identifies general land use policies, while the Zoning Ordinance identifies specific uses and development standards within these policies. The purpose of the Zoning Ordinance is to serve the public health, safety, comfort, convenience, and general welfare by do the following (City of Poway 2019):

- Aiding in the establishment of residential zones which serve the following purposes:
    1. To reserve appropriately located areas for family living at a broad range of dwelling unit densities consistent with the general plan and with sound standards of public health, safety and welfare;
    2. To ensure adequate light, air, privacy, and open space for each dwelling;
    3. To minimize traffic congestion and to avoid the overloading of public services and utilities by preventing the construction of buildings of excessive bulk or number in relation to the land area around them;
    4. To protect residential properties from noise, illumination, unsightliness, odors, smoke and other objectionable influences;
    5. To facilitate the provision of utility services and other public facilities commensurate with anticipated population, dwelling unit densities, and service requirements.

- Supporting the establishment of planned residential development zones which serve the following purpose:
  1. Planned residential development regulations are intended to facilitate development of areas designated for residential use on the general plan by permitting greater flexibility and, consequently, more creative and imaginative designs for the development of such residential areas than generally is possible under conventional zoning or subdivision regulations.
  2. These regulations are further intended to promote more economical and efficient use of the land while providing a harmonious variety of housing choices, a higher level of urban amenities, and preservation of natural and scenic qualities of open spaces. (Ord. 113 § 1 (Exh. A 5.2.1), 1983)
- Establishing a planned community zone in the development regulations to achieve the following purposes:
  1. To promote and protect the public health, safety, and welfare;
  2. To implement the objectives and policies of the general plan;
  3. To safeguard and enhance environmental amenities and the quality of development;
  4. To attain the physical, social, and economic advantages resulting from comprehensive and orderly planned use of land resources;
  5. To lessen congestion and assure convenience of access; to secure safety from fire, flood, and other dangers; to provide for adequate light, air, sunlight, and open space; to promote and encourage conservation of scarce resources; to prevent overcrowding of land and undue concentration of population; to facilitate the creation of a convenient, attractive, and harmonious community; to attain a desirable balance of residential and employment opportunities; and to expedite the provision of adequate and essential public services;
  6. To facilitate development within the City in accordance with the general plan by permitting greater flexibility and encouraging more creative and imaginative designs for major urban development projects subject to large-scale community planning;
  7. To promote more economical and efficient use of the land while providing a harmonious variety of housing choices and commercial and industrial activities, a high level of urban amenities, and preservation of natural and scenic qualities of open space;
  8. To provide a process for initiation, review, and regulation of large-scale comprehensively planned urban communities that affords the maximum flexibility to the developer within the context of an overall development program and specific, phased development plans coordinated with the provision of necessary public services and facilities. (Ord. 113 § 1 (Exh. A 5.3.1), 1983)
- Incorporating the development of open space zones for the purpose of:
  1. Provide for compatible recreational uses.
  2. Provide public or private active-recreation uses and activities on land within the community.
  3. Promote land use compatibility with existing or planned residential, commercial, manufacturing, and open space land uses which surround the OS-R zone activity or land use.
  4. Encourage in-fill active-recreation land uses which provide a range of opportunities within the community that service the recreational and social interaction needs of City residents of all ages, economic situations, and physical conditions.
  5. Provide for recreational opportunities within planned communities and planned residential developments.
  6. Provide for associated building construction and development which is architecturally compatible and sensitive to existing and planned land uses on the same parcel of land and on surrounding properties. (Ord. 372 § 4, 1993)

The City's Zoning Ordinance establishes development regulations for specific land uses, identified by zones, as well as overlay areas established in the General Plan, such as open space and floodplain areas. For example, Chapter 17.08, Residential Zones, establishes the permitted land uses and development standards such as setbacks, dwelling unit maximum, agricultural allotments, and building height requirements for areas zoned for residential use. Additionally, some portions of the Zoning Ordinance apply to all areas of the City, regardless of zone, such as Chapter 17.32, Keeping of Animals. The purpose of Title 17 is to assure that development occurs in a manner that protects the natural and topographic character and identity of the environment, the visual integrity of hillsides and ridgelines, sensitive species and unique geologic/geographic features, and the health, safety, and welfare of the general public by regulating grading on private and public property and providing standards and design criteria implementing best management practices to control stormwater and erosion during all construction activities for all development.

Proposition FF

Pursuant to Elections Code Section 4013, Proposition FF, also known as Ordinance 283, passed by the voters of the City of Poway on November 8, 1988, as part of a vote at the general election. In order to preserve open space in the community, no property zoned OS-R shall be rezoned to any zone other than O-S nor shall any amendment to this Title 17 of the Poway Municipal Code be adopted that would increase the residential density on property so zoned or change the uses permitted to allow commercial or manufacturing uses until and unless such rezoning or amendment is approved by ordinance adopted by the voters of the City at a special or general election, or first approved by the Poway City Council and then adopted by the voters of the City at a special or general election. As such, a Proposition FF vote would be required for approval of the proposed project, subject to the approval of the voters of the City, and without such approval, the proposed project would not proceed.

Poway Subarea Habitat Conservation Plan/Natural Community Conservation Plan

The Poway Subarea Habitat Conservation Plan/Natural Community Conservation Plan (Poway Subarea HCP/NCCP) serves two general functions (City of Poway 1996):

1. To create a sustainable interconnected network of habitat preserves throughout and ultimately beyond the City, and thus maintain functioning ecosystems and viable populations of biological resources.
2. To mitigate adverse impacts to biological resources from building the Scripps Poway Parkway Extension, and implementing the Poway General Plan and Paguay Redevelopment Plan.

The Poway Subarea HCP/NCCP is implemented primarily through the City's established land use regulatory process supplemented by new implementation regulations tailored to the plan's conservation objectives. The Poway Subarea HCP/NCCP also defines mitigation requirements for development projects inside and outside of a specified Mitigation Area, and methods for funding land acquisitions and preserve management within the Mitigation Area. The project site does not fall within the Poway Subarea HCP/NCCP Mitigation Area (City of Poway 1996).

4.10.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to land use and planning are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to land use and planning would occur if the project would:

1. Physically divide an established community.
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.10.4 Impacts Analysis

Would the project physically divide an established community?

The proposed project is located on the site of a currently vacant and abandoned golf course and is surrounded by the existing StoneRidge residential neighborhood to the north, east, and west. As seen on Figure 3-1, Land Use Plan, the proposed project's land uses would be organized in a manner that is compatible with the existing single-family homes surrounding the site, and includes design parameters intended to maintain the scenic character of the StoneRidge neighborhood. Residential lots of similar size would be clustered together within the site, and separated by other proposed residence types by large open space areas to define new neighborhoods and maintain view corridors through area. Any development within the project site would be guided by The Farm in Poway Specific Plan (Specific Plan), which includes setback requirements, performance standards, and other development regulations to protect the privacy and quality of life for existing residents around the project site (The Farm in Poway LLC 2020).

Primary access into the proposed project would be from a four-way signalized intersection at Espola Road and Martincoit Road. Secondary access into the site would be from the central portion of the site on the eastern boundary off of Cloudcroft Drive, as well as from the northeastern portion of the project site off of Boca Raton Lane. Proposed entryways to the site are existing roadways used for surrounding neighborhoods. The project proposes construction of internal neighborhood streets and private streets within the project site that would improve access on and around the site, but would not result in any new division of an established community since the site already existed as a golf course.

The proposed project would change the land use from an abandoned golf course to residential use with open space, social and recreational amenities. The proposed project would not result in the division of an established community. Rather, the proposed project would result in the infill of residential uses surrounded by an existing residential community, which is entirely consistent with the proposed uses and precisely the type of residential development encouraged by state law and regional planning documents. Therefore, impacts would be **less than significant**.

Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

As previously described, the existing General Plan Land Use and Zoning Map designates the entire project site as "Open Space – Recreation (OS-R)." A General Plan amendment and zoning amendment would be processed concurrently with the Specific Plan for the proposed project, to re-designate the project site as "Planned Community (PC-9)." Pursuant to the City's Proposition FF, these amendments are subject to the approval of the voters of the City, and without such approval, the proposed project would not proceed. The amendment consists of both a map amendment and a zoning text amendments. Currently, a Planned Community (PC) zone may only be applied to properties 300 acres or larger. The proposed text amendment would revise this portion of the text to allow the proposed project, at approximately 117 acres, to be zoned as a Planned Community (PC). In addition, a new section would be added to the Zoning Ordinance that briefly describes The Farm in Poway Planned Community and requirements for future voter approval for changes to residential density and open space that are not addressed in the Specific Plan. This designation and zoning would be consistent with a few other specific plan areas throughout the City.

Government Code Section 65453(a) authorizes local jurisdictions to adopt specific plans as a tool for the systematic implementation of the general plan. A specific plan must be consistent with the adopted general plan,

but can provide a unique set of land uses, design regulations, and development standards not permitted under a city's existing zoning or by a city's current standards. By allowing greater flexibility, development patterns can be specifically tailored to the characteristics of a site, including creative design concepts, density ranges that differ from a city's zoning code, specially designed roadways, and a mix of uses unique to the specific plan area. Specific plans may be adopted, in whole or in part, by either resolution or by ordinance. All development and improvements constructed within a specific plan area must be consistent with the City's general plan, the specific plan, and the tentative map(s).

The proposed project includes the adoption of a new specific plan, the purpose of which is to establish a link between implementing policies of the General Plan and the individual development proposals in a defined area. As required by Government Code Section 65450 et seq., the Specific Plan contains land uses and development regulations, infrastructure requirements, and implementation measures for the development of a specific geographic area (referred to as the project site or Specific Plan Area). These provisions require that a specific plan be consistent with the adopted general plan. The Specific Plan includes a General Plan Consistency Analysis, which demonstrates it is consistent with applicable General Plan policies (The Farm in Poway LLC 2020). The General Plan Consistency Analysis is outlined in Appendix H.

As previously described, the proposed project densities would be compatible with the existing, adjacent residential uses. The surrounding area is zoned as RS-4, which allows for single-family residential development on minimum lot sizes of 10,000 square feet; additional uses are permitted that are complementary to, and can exist in harmony with, a residential neighborhood. Proposed residential development within the project site incorporates a design that reflects the rural and open space elements found throughout neighboring communities. The proposed project design includes 55.72 acres of open space conservation for largely agricultural purposes, 14.65 acres of recreational open space, and 33.85 acres of residential land use. The proposed zoning would be as follows (The Farm in Poway LLC 2020):

- Open Space – Conservation (OS-C) is designed to permanently preserve the open space amenities that provide the rural setting for the existing neighborhood and a new residential master planned community. These open space areas serve as a physical and visual buffer between existing residential uses and new residential development, maintaining neighbor's privacy and providing the visual backdrop for the new community. Parcels designated as OS-C shall be deed-restricted to ensure that they are preserved as open space in perpetuity. Parcels designated as OS-C may be planted with agriculture or naturalized open space areas.
- The Open Space – Recreation (OS-R) is intended to replace the recreational amenities once provided by the golf course to support new and existing residential uses within and around the Specific Plan area. Recreational amenities include social, recreational, and educational uses that support healthy and active lifestyles, promote lifelong learning and community education, and encourage ecological stewardship.
- Residential Twin (R-T) consist of two single-family attached homes (twin homes) adjoined along a common property line.
- Residential Cottage (R-C) include a group of 2 to 4 single-family homes grouped together around a shared motor court. Similar to traditional farmsteads, these consist of an enclave of buildings that are designed to relate to one another. Residential Farmsteads offer a unique opportunity to create a neighborhood within a neighborhood.
- Residential Garden (R-G) include traditional single-single-family homes that take direct access from a private street.

- Residential Homesteads (R-H) are located within the Very High Fire Hazard Severity Area (VHFHSZ). As such, they maintain significantly larger building separation that resemble those found on rural homesteads.
- Residential Meadows (R-M) are large single-family homes situated on traditional lots with conventional setbacks.

As described above, the proposed project's consistency with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect is detailed in Appendix H. Based on the preceding discussion regarding the proposed project's land use and design compatibility and based on the consistency analysis presented in Appendix H, the proposed project would not result in a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect; therefore, impacts would be **less than significant**.

4.10.5 Cumulative Impacts

Figure 3-11, Cumulative Projects, and Table 3-2, Cumulative Projects, identify the projects generally considered for the cumulative analysis. While land use impacts tend to be localized in nature, and specific impacts are tied either directly or indirectly to the specific action, the proposed project may have the potential to work in concert with other past, present, or future projects to cause unintended land use impacts (e.g., reducing available open space or accommodating increased growth that may result in more intensive land uses).

Therefore, impacts to land use tend towards larger policy areas as opposed to the more focused project-specific impacts. The geographic scope for analyzing cumulative impacts related to land use includes consideration of all the cumulative projects listed in Table 3-2.

The cumulative projects approved and under review within the City of Poway, City of Escondido, and City of San Diego would also be localized in nature. In respect to land uses, the proposed projects would be required to comply with any policies and planning requirements that the City of Poway voters had previously approved in regards to recreational open space zoning. Additionally, any proposed zoning changes would also have to be approved by the City of Poway and associated bodies of interest. Therefore, the land use and planning impacts would have been foreseen and **less than cumulatively significant.**

4.10.6 Mitigation Measures

The proposed project would not result in any significant impacts to land use; therefore, no mitigation would be required.

4.10.7 Level of Significance After Mitigation

As analyzed in Section 4.10.4, Impacts Analysis, implementation of the proposed project would not result in the division of an established community, as proposed land uses are compatible with surrounding residential neighborhoods, and proposed design elements are consistent with the community character of the City. Additionally, the proposed project would incorporate recreational open space land uses open to the public. With adoption of the proposed Specific Plan, General Plan amendment, and Zoning amendment, the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of reducing an environmental effect. Impacts related to land use would be **less than significant**, and no mitigation would be required.

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4.11 Noise

This section describes the existing noise conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. This analysis is based on review of existing resources; technical data; applicable laws, regulations, and guidelines; and the noise technical report prepared by Dudek in February 2020. The Noise Technical Report for The Farm in Poway Project is included in this Environmental Impact Report (EIR) as Appendix I.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to Noise focused on the following topics:

- Permanent increase in ambient noise
- Temporary increase in construction noise
- Increased noise during events at The Barn and The Social

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.11.1 Existing Conditions

Environmental Setting

The project site is located in the northern portion of the City of Poway (City), California, and consists of the decommissioned StoneRidge Country Club and its associated 18-hole golf course. The project site is bordered by Espola Road to the south, and existing residential communities along St. Andrews Drive to the west and north. The eastern boundary largely adjoins existing homes along Cloudcroft Drive, Tam O'Shanter Drive, and Boca Raton Lane. The project site consists of approximately 117.2 acres and currently has an address of 17166 Stoneridge Country Club Lane, Poway, California 92064. Figure 3-9, Project Location, in Chapter 3, Project Description, shows the proposed project's location within the County of San Diego (County) and the City. Regionally, the City is situated near the middle of the County, approximately 20 miles north of downtown San Diego via Interstate 15. The project site is approximately two miles east of Interstate 15. The City boundary is approximately one-half mile to the west of the project site. Figure 1-1, Site Plan, in Chapter 1, Executive Summary, depicts an aerial view of the project site vicinity.

The proposed project includes a total of 160 single-family homes and a mix of open space and recreational uses open to the public (see Figure 3-9). Residential land uses would compose approximately 33.85 acres and would range in density from 2.5 to 10.7 dwelling units per acre. Open space uses would compose approximately 70.37 acres and would be comprised of Open Space – Conservation (OS-C) and Open Space – Recreational (OS-R). Approximately 12.96 acres would be private streets.

Noise Factors and Terminology

Sound

Sound is mechanical energy transmitted by pressure waves in a compressible medium, such as air. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired. The sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of measurement of sound pressure is a decibel (dB). Under controlled conditions in an acoustics laboratory, the trained, healthy human ear is able to discern changes in sound levels of one dB when exposed to steady, single-frequency signals in the mid-frequency range. Outside such controlled conditions, the trained ear can detect changes of two dB in normal environmental noise. It is widely accepted that the average healthy ear, however, can barely perceive noise level changes of three dB. A change of five dB is readily perceptible, and a change of 10 dB is perceived as twice or half as loud (Caltrans 2013a). A doubling of sound energy results in a three dB increase in sound, which means that a doubling of sound energy (e.g., doubling the number of daily trips along a given road) would result in a barely perceptible change in sound level.

Sound may be described in terms of level or amplitude (measured in dB), frequency or pitch (measured in hertz, or cycles per second), and duration (measured in seconds or minutes). Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel (dBA) scale performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear.

Several descriptors of noise (noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise. These descriptors include the equivalent noise level over a given period (L_{eq}), the statistical sound level (L_n), the day–night average noise level (L_{dn}), and the community noise equivalent level (CNEL). Each of these descriptors uses units of dBA.

L_{eq} is a sound level energy-averaged over a specified time period, represented by a single constant value equivalent to the variable sound energy received at a location. For example, a one-hour L_{eq} measurement would represent the average amount of energy contained in all the noise that occurred in that hour. L_{eq} is an effective noise descriptor because it allows convenient comparison of time-varying sound levels at different locations. L_{max} is the greatest sound level measured during a designated time interval or event.

Unlike the L_{eq} metrics, L_{dn} and CNEL metrics always represent 24-hour periods. L_{dn} and CNEL also differ from L_{eq} because they apply a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern). “Time weighted” refers to the fact that L_{dn} and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7 a.m. to 7 p.m.) receives no penalty. Noise during the evening hours (7 p.m. to 10 p.m.) is penalized by adding five dB to the measured or predicted L_{eq} values, and nighttime (10 p.m. to 7 a.m.) noise is penalized by adding 10 dB. L_{dn} differs from CNEL in that the daytime period is defined as 7 a.m. to 10 p.m., thus eliminating the evening period. L_{dn} and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than one-half to one dB, and are thus often considered comparable or even equivalent and interchangeable by many jurisdictions.

Vibration

Vibration is the oscillatory movement of solid mass. Like sound, it is described in terms of frequency and amplitude, which can be expressed as displacement, velocity, or acceleration. For purposes of this analysis and consistent with environmental assessment, vibration is presented and discussed herein as units of velocity (inches per second [ips]) and their decibel equivalents, as appropriate. Vibration impacts to buildings are generally discussed in terms of peak particle velocity (PPV), while human annoyance or disturbance is often discussed with root-mean-square vibration velocity levels that are converted to decibels. But for purposes of this analysis, PPV will be used to describe all vibration for ease of reading and comparison. Vibration can impact people, structures, and sensitive equipment or processes (Caltrans 2013b). Common sources of vibration within communities include construction activities and railroad operations. Groundborne vibration generated by construction projects exhibits highest amplitudes during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities that involve sudden impacts or other transient impulses of energy delivered to soil and rock strata. Vibration can also occur more regularly or even be continuous in nature, such as the steady operation of mechanical equipment featuring reciprocating or rotating components that are slightly imbalanced. The maximum vibration level standard used by the California Department of Transportation (Caltrans) for the prevention of structural damage to typical residential buildings is 0.3 ips PPV (Caltrans 2013b).

Methodology

On June 11, 2019, noise measurements were conducted on and near the project site to quantify and help characterize the existing pre-project outdoor sound environment. Table 4.11-1 provides the locations, date, and times these noise measurements were performed. The noise measurements were taken using a Rion NL-52 sound level meter equipped with a one-half-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute standard for a Type 1 (Precision Grade) sound level meter. The accuracy of the sound level meter was verified using a field calibrator before and after the measurements, and the measurements were conducted with the microphone positioned approximately five feet above the ground.

Table 4.11-1. Measured Community Outdoor Noise Levels

Receptor	Location/Address	Date (mo:dd:yy)	Time (hh:mm)	L_{eq} (dBA)	L_{max} (dBA)
ST1	North of 16616 Espola Rd. Poway, California 92064	06/11/19	10:20–10:30 a.m.	64.9	75.1
ST2	South of multi-family homes on Port Marnock Dr. Poway, California 92064	06/11/19	11:30–11:40 a.m.	43.1	49.9
ST3	South of 17956 St Andrews Dr. Poway, California 92064	06/11/19	11:15–11:25 a.m.	42.2	67.5
ST4	East of 17154 Cloudcroft Dr. Poway, California 92064	06/11/19	11:00–11:10 a.m.	52.5	64.5

Source: Appendix I.
Notes: mo = month; dd = day; yy = year; hh = hour; mm = minute; L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibels; L_{max} = maximum sound level during the measurement interval; ST = short-term noise measurement locations.

The four short-term noise measurement locations (ST1–ST4) were selected to represent sample existing noise-sensitive receivers on and near the project site. These locations are depicted as receivers ST1–ST4 on Figure 4.11-1, Noise Measurement Locations. The measured energy-averaged (L_{eq}) and maximum (L_{max}) noise levels at these field survey locations are provided in Table 4.11-1. The primary noise sources at the sites identified in Table 4.11-1 consisted of traffic along adjacent roadways; and, the sounds of rustling leaves, aircraft overflights, distant conversation, and birdsong. As shown in Table 4.11-1, the measured sound levels ranged from approximately 42.2 dBA L_{eq} at ST3 to 64.9 dBA L_{eq} at ST1. More details of the collected noise measurement data can be found in Appendix I.

4.11.2 Relevant Plans, Policies, and Ordinances

Federal

Noise Control Act

The Noise Control Act of 1972 was passed to promote healthy environments for Americans free from noise that jeopardizes their health and welfare. The Noise Control Act serves to (1) establish a means for effective coordination of federal research and activities in noise control, (2) authorize the establishment of federal noise emission standards for products distributed in commerce, and (3) provide information to the public respecting the noise emission and noise reduction characteristics of such products.

In 1982, the U.S. Environmental Protection Agency phased out its Office of Noise Abatement and Control in an effort to shift the onus of noise control policy from the federal government to state and local governments.

Federal Transit Administration

In its Transit Noise and Vibration Impact Assessment Manual, the Federal Transit Administration recommends a daytime construction noise level threshold of 80 dBA L_{eq} over an eight-hour period (FTA 2018) when "detailed" construction noise assessments are performed to evaluate potential impacts to community residences surrounding a project. Although this guidance is not a regulation, it can serve as a quantified standard in the absence of such limits at the state and local jurisdictional levels.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Noise Insulation Standards (California Code of Regulations Title 24)

California noise regulations are contained in Title 24 of the California Code of Regulations, Noise Insulation Standards, which establishes the acceptable interior environmental noise level (45 dBA L_{dn}) for multi-family dwellings (the regulations may be extended by local legislative actions to include single-family dwellings). Section

1207 of Title 24 also requires that an interior acoustical study demonstrating that interior noise levels due to exterior sources will be less than or equal to 45 dBA CNEL be performed for affected multi-family structures that are exposed to exterior noise levels in excess of 60 dBA CNEL.

California Department of Health Services Guidelines

The State Department of Health Services has developed guidelines of community noise acceptability for use by local agencies (OPR 2003). Selected relevant levels are listed as follows:

- Below 60 dBA CNEL – normally acceptable for low-density residential use
- 50 to 70 dBA – conditionally acceptable for low-density residential use
- Below 65 dBA CNEL – normally acceptable for high-density residential use and transient lodging
- 60 to 70 dBA CNEL – conditionally acceptable for high-density residential, transient lodging, churches, educational, and medical facilities

The normally acceptable exterior noise level for transient lodging use is up to 65 dBA CNEL. Conditional acceptable exterior noise levels range up to 70 dBA CNEL for transient lodging.

California Department of Transportation

In its Transportation and Construction Vibration Guidance Manual, Caltrans recommends a vibration velocity threshold of 0.2 ips PPV for assessing "annoying" vibration impacts to occupants of residential structures (Caltrans 2013b). Although this guidance is not a regulation, it can serve as a quantified standard in the absence of such limits at the local jurisdictional level. Similarly, thresholds to assess the risk of building damage due to construction vibration vary with the type of structure and its fragility, but tend to range between 0.3–0.4 ips PPV for typical residential structures (Caltrans 2013b).

Local

Poway Municipal Code, Chapter 8.08 – Noise Abatement and Control

The following sections of the City's Municipal Code would apply to the proposed project (City of Poway 2019):

Section 8.08.010 Purpose and Intent

The City Council finds and declares that:

A. Inadequately controlled noise presents a growing danger to the health and welfare of the residents of the City;
B. The making and creating of disturbing, excessive, offensive or unusually loud noises within the jurisdiction limits of the City is a condition which has persisted and the level and frequency of occurrence of such noises continue to increase;
C. The making, creation or continuance of such excessive noises which are prolonged or unusual in their time, place, and use effect and are a detriment to the public health, comfort, convenience, safety, welfare, and prosperity of the residents of the City;

D. Every person is entitled to an environment in which the noise is not detrimental to his or her life, health, and enjoyment of property; and

E. The necessity in the public interest for the provisions and prohibitions contained in this chapter and enacted as declared to be a matter of legislative determination and public policy and it is further declared that the provisions and prohibitions contained and enacted are in the pursuance of and for the purpose of securing and promoting the public health, comfort, convenience, safety, welfare, prosperity, peace and quiet of the City and its inhabitants. (Ordinance 29, Section 1, 1981; CC Section 36.401)

Section 8.08.040 Sound Level Limits

Unless a variance has been applied for and granted pursuant to this chapter, it is unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property on which the sound is produced, exceeds the applicable limits set forth below, except that construction noise level limits shall be governed by PMC 8.08.100:

Zone or Land Use Designation	Allowable Time	Applicable Limit One-Hour Average Sound Level (In decibels)
OS-RM, OS, OS/1du, RR-A, RR-B, RR-C, RS-2, RS-3, RS-4, RS-7, and Specific Plan, PRD and PC regulations with a density of 11 dwelling units or less per acre	10:00 p.m. to 7:00 a.m.	40
	7:00 a.m. to 10:00 p.m.	50
PF, RA, RC, MHP, and Specific Plan, PRD and PC regulations with a density of 11 or more dwelling units per acre	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
SPC, MU, CO, CN, CB, CG, TC, A/GC and HC	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
MRE, SC, LI, LI/S and IP	Anytime	70

The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts.

Fixed location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the noise level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the equipment is located. (Ordinance 646, Section 3, 2006; Ordinance 172, Section 1 (Exh. A), 1985; Ordinance 29, Section 1, 1981; CC, Section 36.404)

Section 8.08.100 – Construction Equipment

Except for emergency work, it is unlawful for any person, including the City, to operate any single or combination or powered construction equipment at any construction site, except as outlined in subsections A and B of this section:

A. It is unlawful for any person, including the City, to operate any single or combination of powered construction equipment during specific hours before 7:00 a.m. or after 5:00 p.m. on Mondays through Saturdays or at any time on a Sunday or holiday except as provided below. For purposes of this section, "construction" does not include minor home repairs, lawn mowing, gardening and similar types of routine as identified in PMC 8.078.170(D).
   a. The City Engineer may permit, in writing, the use of powered construction equipment during specific hours before 7:00 a.m. or after 5:00 p.m. Monday through Saturday, or any time on a Sunday or holiday, if he or she determines that such operations are not detrimental to the health, safety, or welfare of the surrounding community, that the conduct of the activity is limited by the nature of the work, and that is in the best interest of the public to perform the work outside of normal hours and days of work.
   b. A residential property owner constructing a single-family residence, or constructing an addition to, or otherwise modifying, a single-family residence for personal occupancy may operate powered construction equipment on Sundays or holidays between the hours of 10:00 a.m. and 5:00 p.m. in compliance with the requirements of subsection B of this section; provided, that:
      i. The type of equipment used is limited to handheld construction equipment or equipment powered by small electrical motors, including, but not limited to, small cement mixers, table saws, and similar small equipment; and
      ii. The construction is not carried out for profit or livelihood. Upon request of the City, a property owner shall provide documentation, to the satisfaction of the Director of Development Services, of personal occupancy of the residence, or the intent to personally occupy the residence.

B. No such equipment, or combination of equipment regardless of age or date of acquisition, shall be operated so as to cause noise at a level in excess of 75 decibels for more than eight hours during any 24-hour period when measured at or within the property lines of any property which is developed and used either in part or in whole for residential purposes. These found levels shall be corrected for time duration in accordance with the following table:

Total Duration in 24 Hours	Decibel Level Allowance	Total Decibel Level
Up to 15 Minutes	+15	90
Up to 30 Minutes	+12	87
Up to 1 Hour	+9	84
Up to 2 Hours	+6	81
Up to 4 Hours	+3	78
Up to 8 Hours	0	75

In the event that lower noise limit standards are established for construction equipment pursuant to State or Federal law, said lower limits shall be used as a basis for revising and amending the noise level limits specified in subsection B of this section. (Ordinance 646, Section 4, 2006; Ordinance 29, Section 1, 1981; CC Section 36.410).

Poway Comprehensive Plan: General Plan – Emergency Services Element

The Noise Hazards section of the Emergency Services Element of the Poway Comprehensive Plan: General Plan (General Plan), in compliance with Section 65302(f) of the Government Code requiring a noise element that

quantifies the community noise environment and serves to guide development to achieve noise compatible land uses, includes the following policy and strategies regarding noise (City of Poway 1991):

Goal VII, Policy H – Noise: The City shall ensure a safe and pleasant acoustical environment for the residents of Poway.

- **Strategy 1:** Utilize site planning, zoning, regulations, architectural design standards and building construction regulations to reduce noise impacts.
- **Strategy 2:** Review all discretionary project applications which include sensitive land uses for conformance with the Exterior CNEL Compatibility Matrix table.
- **Strategy 3:** Require mitigation measures for all proposed projects which are found, according to an Acoustical Analysis Report, to be subject to incompatible CNEL values.
- **Strategy 4:** Proposed land uses which generate noise should be subject to an Acoustical Noise Report, with mitigation measures to be specified.
- **Strategy 5:** An Acoustical Noise Report shall be prepared for all public works projects which have a potential for public noise exposure.
- **Strategy 6:** Increases in traffic noise caused solely by roadway improvements shall be mitigated to future levels which would have occurred without the improvement.
- **Strategy 7:** When noise protection barriers are needed, they shall be located in the most cost-effective location. The maximum protection for a given barrier height and length shall be determined by acoustical analysis using the current edition of the FHWA [Federal Highway Administration] noise level model program.
- **Strategy 8:** Noise protection walls may be limited to a height of eight feet, even when a taller wall may be needed to achieve Noise Element standards, if a taller one is deemed to be aesthetically degrading to the environment.
- **Strategy 9:** Mitigation wall will be at least four feet high, even if mitigation calculations call for a shorter wall.
- **Strategy 10:** A time-averaging should level meter meeting American National Standards Institute S.4 standards shall be used to enforce the noise control provisions of the Zoning Ordinance.
- **Strategy 11:** Enforce the provisions of the California Noise Insulation Standards (California Code of Regulations, Title 24) prior to issuing a building permit for multi-family dwelling units. If these units are located in an area of noise incompatibility (exposed to 60 decibels or more, CNEL), an Acoustical Analysis Report, as prescribed in Section IID of the Noise Hazard Element, shall be prepared demonstrating that interior noise levels of habitable rooms will not exceed 45 decibels.
- **Strategy 12:** The interior floor/ceiling and party wall assemblies for multi-family dwelling, whether or not they are located in areas of noise incompatibility, shall provide a minimum insulation between units of 45 decibels, FSTC [field transmission class].
- **Strategy 13:** Standard care and practice guidelines for building construction shall include, but not be limited to, the current edition of the American Standards for Testing and Materials, E-497, standard practice for installing sound-insulating lightweight partitions.
- **Strategy 14:** When new projects are submitted to the City that require Conditional Use Permits Tentative Map approval, etc. a report must be submitted that demonstrates that significant environmental impacts, including noise, are mitigated to less than significant levels.
- **Strategy 15:** Acoustical Analysis Report standards containing the required format, measurements, calculations and exhibits for land use, zoning and building permit applications shall be prepared and updated annually.

4.11.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to noise are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to noise would occur if the project would:

1. Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
2. Result in generation of excessive groundborne vibration or groundborne noise levels.
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

For this noise assessment and The Farm in Poway Specific Plan (Specific Plan), up to 70 dBA CNEL noise exposure at the property lines of residences within the project site would be allowed and thus serve as the relevant threshold. At the boundary lines of existing residences outside of (or adjoining) the project site, the threshold would be a more stringent 60 dBA CNEL.

4.11.4 Impacts Analysis

Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Construction noise and vibration are temporary phenomena. Construction of the proposed project would generate noise that could expose nearby sensitive receptors (i.e., existing residences) to elevated noise levels that may disrupt communication and routine activities. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction, distance between the noise source and receiver, and intervening structures. The analysis that follows is in regards to the noise levels calculated to result from construction of the proposed project at nearby sensitive receptors.

The construction activities for the proposed project would vary by component (i.e., Open Space Land Use Districts and Residential Land Use Districts) and location. The proposed construction activities located nearest to a sensitive receptor were used for each phase and component. Representative equipment for residential lot earthwork and for residential building construction was assembled from similar residential subdivision projects that Dudek has evaluated for construction noise. Table 4.11.-2 summarizes the construction phases and distances to the apparent closest noise-sensitive receptors that are used in the predictive analysis of construction noise levels at various community locations. Distance values of zero indicate the listed construction phase is not applicable to the project feature.

Table 4.11-2. Construction Phase Distance to Nearest Pre-Existing Noise-Sensitive Receptors (in feet)

Construction Phase	Project Feature (and distance in feet to nearest NSR)								
	Residential	*The Farm*	*The Meadow*	*The Club*	*Trail System*	*Road Paving*	*Basin*	*The Working Farm*	*Community Garden*
Demolition	120	120	0	120	0	0	120	0	0
Site Preparation	50	50	150	50	25	36	15	50	50
Grading	50	50	150	50	25	36	15	50	50
Building Construction	100	360	0	300	25	0	0	0	0
Paving	0	120	0	50	25	36	0	0	0
Architectural Finishes	100	360	0	300	0	0	0	0	0

Note: NSR = noise-sensitive receptor.

An Excel-based noise prediction model emulating and using reference data from the Federal Highway Administration's Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land use.[1] Input variables for the predictive modeling consist of the equipment type and number of each (e.g., two graders, one loader, one tractor), the duty cycle for each piece of equipment (e.g., percentage of time within a specific time period, such as an hour, when the equipment is expected to operate at full power or capacity and thus make noise at a level comparable to what is presented in Table 4.11-2), and the distance from the noise-sensitive receiver. The predictive model also considers how many hours that equipment may be on site and operating (or idling) within an established work shift. No topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis.

Equipment that would be in use during proposed construction would include, in part, graders, backhoes, rubber-tired dozers, loaders, cranes, forklifts, cement mixers, pavers, rollers, and air compressors. The typical maximum noise levels for various sample pieces of construction equipment at a distance of 50 feet are presented in Table 4.11-3. Note that the equipment noise levels presented in Table 4.11-3 are maximum noise levels, which likely result in overestimating actual impacts from the construction of the proposed project. Typically, construction equipment operates in alternating cycles of full power and low power, producing average noise levels less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 4.11-3. Typical Construction Equipment Maximum Noise Levels

Equipment Type	Typical Maximum Noise Level (L_{max}, dBA at 50 Feet)
All Other Equipment > 5 HP	85
Backhoe	78
Compressor (air)	78
Concrete Saw	90

[1] Although the RCNM was funded and promulgated by the Federal Highway Administration, it is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are often used for other types of construction.

Table 4.11-3. Typical Construction Equipment Maximum Noise Levels

Equipment Type	Typical Maximum Noise Level (L_{max}, dBA at 50 Feet)
Crane	81
Dozer	82
Excavator	81
Flat Bed Truck	74
Front-End Loader	79
Generator	72
Grader	85
Man Lift	75
Paver	77
Roller	80
Scraper	84
Welder / Torch	73

Source: Appendix I
Notes: L_{max} = maximum sound level; dBA = A-weighted decibels; HP = horsepower.

With the exception of the concrete saw, and as suggested by the list of L_{max} values in Table 4.11-3, the maximum noise levels at 50 feet tend not to exceed 85 dBA for common equipment and vehicles anticipated for this kind of multi-use development project. Hourly L_{eq} values at this distance, however, would vary depending on duty cycle. Construction noise in a well-defined area typically attenuates at approximately six dB per doubling of distance, as each piece of equipment can be approximated as an individual point-type source. Alternately, a set of equipment in proximity to one another could be considered geographically a common point source; or, on average with respect to time, a set of operating equipment with uncertain positions within a defined area could be considered a common point source. Proposed project construction would take place both near and far from adjacent, existing noise-sensitive uses. For example, construction near the northern project site boundary would appear to take place within approximately 15 feet of existing residential property lines, but during construction of other proposed project components, construction activities would be much further away from noise-sensitive receptors, as indicated in the distance values in Table 4.11-2, Construction Phase Distance to Nearest Pre-Existing Noise-Sensitive Receptors. Appendix I provides details on the calculations of estimated construction noise, which are summarized in the following sections and categorized in a manner similar to what is presented in Chapter 3.

Construction of Open Space Land Use Districts

The Club

The Club would be located towards the middle of the project site, north of the R-C residential district (see Figure 1-1). Construction activities could occur within 50 feet of the nearest noise-sensitive receiver. Estimated noise levels from the major construction phases of The Club were calculated for the nearest noise-sensitive land use, as presented in Table 4.11-4.

Table 4.11-4. Construction Noise Modeling Summary Results for The Club

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Demolition (dozer, excavator, concrete saw)	74
Site Preparation (backhoe, dozer, front-end loader)	75
Grading (excavator, grader, scraper)	75

Table 4.11-4. Construction Noise Modeling Summary Results for The Club

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Building Construction (crane, man lift, generator, backhoe, front-end loader, welder)	64
Paving (paver, roller, other equipment > 5 HP)	74
Architectural Coating (air compressor)	59

Source: Appendix I
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel; HP = horsepower.
[a] At nearest distance per Table 4.11-2.

As presented in Table 4.11-4, the estimated construction noise levels are predicted to be as high as 75 dBA L_{eq} over an eight-hour period at the nearest existing residences (as close as 50 feet away) when grading activities take place near the project site boundary. Distances to the nearest noise-sensitive receiver are greater, as shown in Table 4.11-2 for activities such as demolition and building construction and therefore yield lower eight-hour predicted noise levels. Note that these estimated construction noise levels at a source-to-receiver distance of 50 feet include consideration of limited operation duration of specific anticipated equipment as detailed in Appendix I. By way of example, a grader might make one or more passes on site that are this close to the receiver; but, for the remaining time during the day, the grader would be sufficiently farther away, performing work at a more distant location or simply not operating.

The Meadow

The Meadow would be located directly adjacent to the east of The Club. Construction activities could occur within 150 feet of the nearest noise-sensitive receiver. Estimated noise levels from the major construction phases of The Meadow were calculated for the nearest noise-sensitive land use, as presented in Table 4.11-5.

Table 4.11-5. Construction Noise Modeling Summary Results for The Meadow

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Site Preparation (backhoe, dozer, front-end loader)	71
Grading (excavator, grader, scraper)	75

Source: Appendix I
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel.
[a] At nearest distance per Table 4.11-2.

As presented in Table 4.11-5, the estimated construction noise levels are predicted to be as high as 75 dBA L_{eq} over an eight-hour period at the nearest existing residences (as close as 150 feet away) when grading activities take place near the project site boundary. Therefore, under these conditions, the predicted 75 dBA eight-hour L_{eq} value would be compliant with the City's threshold for construction noise.

The Farm (The Barn and Butterfly Farm)

The Farm, a collective reference for both The Barn and Butterfly Farm features of the proposed project, would be located at the southernmost portion of the project site, adjacent to Espola Road and at the proposed entrance of the project site at the intersection of Espola Road and Martincoit Road (see Figure 1-1). Construction activities could occur within 50 feet of the nearest noise-sensitive receiver. Estimated noise levels from the major construction phases of The Farm were calculated for the nearest noise-sensitive land use, as presented in Table 4.11-6.

Table 4.11-6. Construction Noise Modeling Summary Results for The Farm

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Demolition (dozer, excavator, concrete saw)	74
Site Preparation (backhoe, dozer, front-end loader)	75
Grading (excavator, grader, scraper)	75
Building Construction (crane, man-lift, generator, backhoe, front-end loader, welder)	63
Paving (paver, roller, other equipment > 5 HP)	72
Architectural Coating (air compressor)	57

Source: Appendix I
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel; HP = horsepower.
[a] At nearest distance per Table 4.11-2.

As presented in Table 4.11-6, the estimated construction noise levels are predicted to be as high as 75 dBA L_{eq} over an eight-hour period at the nearest existing residences (as close as 50 feet away) when grading activities take place near the project site boundary. Distances to the nearest noise-sensitive receiver are greater, as shown in Table 4.11-2, for activities such as demolition and building construction and therefore yield lower eight-hour predicted noise levels. Note that these estimated construction noise levels at a source-to-receiver distance of 50 feet include consideration of limited operation duration of specific anticipated equipment as detailed in Appendix I. By way of example, a grader might make one or more passes on site that are this close to the receiver; but, for the remaining time during the day, the grader would be sufficiently farther away, performing work at a more distant location or simply not operating. Therefore, under these conditions, the predicted 75 dBA eight-hour L_{eq} value would be compliant with the City's threshold for construction noise.

The Working Farm (Agrifields)

The Working Farm would be composed of agrifields located at the northernmost portion of the project site, along the northwestern and northern project site boundaries (see Figure 1-1). Construction activities could occur within 50 feet of the nearest noise-sensitive receiver. Estimated noise levels from the major construction phases of The Working Farm were calculated for the nearest noise-sensitive land use, as presented in Table 4.11-7.

Table 4.11-7. Construction Noise Modeling Summary Results for The Working Farm

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Site Preparation (backhoe, front-end loader)	75
Grading (excavator, grader, scraper)	75

Source: Appendix I
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel.
[a] At nearest distance per Table 4.11-2.

As presented in Table 4.11-7, the estimated construction noise levels are predicted to be as high as 75 dBA L_{eq} over an eight-hour period at the nearest existing residences (as close as 50 feet away) when grading activities take place near the project boundary. Therefore, under these conditions, the predicted 75 dBA eight-hour L_{eq} value would be compliant with the City's threshold for construction noise.

Community Gardens

Community gardens would be located throughout the project site, providing future residents a garden plot within walking distance of their home Construction activities could occur within 50 feet of the nearest noise-sensitive

receiver. Estimated noise levels from the major construction phases of the community gardens were calculated for the nearest noise-sensitive land use, as presented in Table 4.11-8.

Table 4.11-8. Construction Noise Modeling Summary Results for the Community Gardens

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Site Preparation (backhoe, front-end loader)	75
Grading (excavator, grader, scraper)	75

Source: Appendix I
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel.
[a] At nearest distance per Table 4.11-2.

As presented in Table 4.11-8, the estimated construction noise levels are predicted to be as high as 75 dBA L_{eq} over an eight-hour period at the nearest existing residences (as close as 50 feet away) when grading activities take place near the project site boundary. Therefore, under these conditions, the predicted 75 dBA eight-hour L_{eq} value would be compliant with the City's threshold for construction noise.

Trail System

A multi-use trail system would circulate throughout the project site to provide mobility and recreational opportunities for pedestrians and bicyclists. The majority of the trail system would include decomposed granite or compacted earth trails. Trails along the southwest project boundary would require construction activities that could occur within 50 feet of the nearest noise-sensitive receiver. On average, this anticipated distance between trail construction activity and a receiver would be 25 feet. Some accessory structures, such as a landscaping maintenance shack, would also be installed as part of this construction phase and could be in similar proximity to an existing noise-sensitive receiver. Estimated noise levels from the major construction phases for the trail system were calculated for the nearest noise-sensitive land use, as presented in Table 4.11-9.

Table 4.11-9. Construction Noise Modeling Summary Results for the Trail System

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Site Preparation (backhoe, front-end loader)	74
Grading (grader)	78
Building Construction (generator, welder / torch)	69
Paving (concrete mixer truck, paver)	74

Source: Appendix I
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel.
[a] At nearest distance per Table 4.11-2.

As presented in Table 4.11-9, the estimated construction noise levels are predicted to be as high as 78 dBA L_{eq} over an eight-hour period at the nearest existing residences (as close as 25 feet away) when grading activities take place near the project site boundary. Therefore, under these conditions, the predicted eight-hour L_{eq} value would not be compliant with the City's threshold for construction noise and would require mitigation.

The Basins

Bio-retention basins would be scattered throughout the proposed project, and construction of these basins would involve site preparation and grading activities as close as 15 feet away from noise-sensitive receptors. Estimated

noise levels from the construction phases of the basins were calculated for the nearest noise-sensitive land use, as presented in Table 4.11-10. The detailed RCNM input and output values are provided in Appendix I.

Table 4.11-10. Construction Noise Modeling Summary Results for the Basins

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Site Preparation (backhoe, dozer, front-end loader)	85
Grading (excavator, grader, scraper)	85

Source: Appendix I.
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel.
[a] At nearest distance per Table 4.11-2.

As presented in Table 4.11-10, the estimated construction noise levels are predicted to be as high as 85 dBA L_{eq} over an eight-hour period at the nearest existing residences (as close as 15 feet away) when grading activities take place near the project site boundary. Note that these estimated noise levels at a source-to-receiver distance of 15 feet would only occur when the single loudest piece of heavy equipment is operating along the project site boundary for a cumulative period of up to 0.75 hours a day. By way of example, the grader might make multiple passes on site that are this close to the receiver; but, for the remaining time during the day, the grader would be sufficiently farther away, performing work at a more distant location or simply not operating. When the entire assemblage of equipment is working right at the edge of the construction zone in each phase, within 15 feet of existing residences, construction noise levels are anticipated to reach up to 85 dBA L_{eq}. Assuming relatively steady work, this would result in an exceedance of the City's construction noise limit of 75 dBA eight-hour L_{eq}.

Overall, regarding construction of open space land use districts, noise levels would not exceed established thresholds, with the exception of trail system and basin construction, which has the potential to exceed the City's construction noise limit of 75 dBA eight-hour L_{eq}. Therefore, impacts would be **potentially significant** (**Impact NOI-1**) and mitigation would be required (**MM-NOI-1**).

Construction of Residential Land Use Districts

New Residential Homes

The proposed project would allow for up to 160 single-family homes to be built around the project site. Construction activities during this component could occur within 50 feet of the nearest sensitive receiver. Estimated noise levels from the major construction phases of new residential homes were calculated for the nearest noise-sensitive land use, as presented in Table 4.11-11.

Table 4.11-11. Construction Noise Modeling Summary Results for New Residential Homes

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Demolition (dozer, excavator, concrete saw)	74
Site Preparation (backhoe, front-end loader)	75
Grading (excavator, grader, scraper)	75
Building Construction (crane, man lift, generator, backhoe, welder)	64
Paving (concrete mixer truck, backhoe, air compressor, paver, roller)	74
Architectural Coating (air compressor)	59

Source: Appendix I.

Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel.
[a] At nearest distance per Table 4.11-2.

As presented in Table 4.11-11, the estimated construction noise levels are predicted to be as high as 75 dBA L_{eq} over an eight-hour period at the nearest existing residences (as close as 50 feet away) when grading activities take place near the project site boundary. Distances to the nearest noise-sensitive receiver would be greater, as shown in Table 4.11-2, for activities such as demolition and building construction, and therefore yield lower eight-hour predicted noise levels. Note that these estimated construction noise levels at a source-to-receiver distance of 50 feet include consideration of limited operation duration of specific anticipated equipment as detailed in Appendix I. By way of example, a grader might make one or more passes on site that are this close to the receiver; but, for the remaining time during the day, the grader would be sufficiently farther away, performing work at a more distant location or simply not operating. Therefore, under these conditions, the predicted 75 dBA eight-hour L_{eq} value would be compliant with the City's threshold for construction noise.

Private Street B

The proposed project's internal street network would consist of all private streets in which construction would involve site preparation, grading, and paving. Construction activities involved with Private Street B near the southern project site boundary could occur as close as approximately 36 feet away from noise-sensitive receptors. Estimated noise levels from the major construction phases associated with Private Street B were calculated for the nearest noise-sensitive land use, as presented in Table 4.11-12.

Table 4.11-12. Construction Noise Modeling Summary Results for Private Street B

Construction Phase (expected equipment types)	Estimated 8-hour L_{eq} (dBA)[a]
Site Preparation (backhoe, dozer, front-end loader)	78
Grading (excavator, grader, scraper)	78
Paving (paver, roller, other equipment > 5 HP)	77

Source: Appendix I.
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel; HP = horsepower.
[a] At nearest distance per Table 4.11-2.

As presented in Table 4.11-12, the estimated construction noise levels are predicted to be as high as 78 dBA L_{eq} over an eight-hour period at the nearest existing residences (as close as 36 feet away) when grading activities take place near the project site boundary. Note that these estimated noise levels at a source-to-receiver distance of 36 feet would only occur when the single loudest piece of heavy equipment is operating along the project site boundary for a cumulative period of up to 0.75 hours a day. By way of example, the grader would make multiple passes on site that are this close to the receiver; but, for the remaining time during the day, the grader would be sufficiently farther away, performing work at a more distant location or simply not operating. When the entire assemblage of equipment is working right at the edge of the construction zone in each phase, within 36 feet of existing residences, construction noise levels are anticipated to reach up to 78 dBA L_{eq}. Assuming relatively steady work, this would result in an exceedance of the City's construction noise limit of 75 dBA L_{eq} over an eight-hour period.

Although nearby off-site residences would be exposed to elevated construction noise levels, the increased noise levels would typically be relatively short term. It is anticipated that construction activities associated with the proposed project would take place primarily within the allowable hours of the City (7 a.m. and 5 p.m., Monday through Saturday). In the event that proposed construction is required to extend beyond these times, extended hours permits would be required and would be obtained by the project applicant.

If work were to occur outside of the allowable hours, annoyance or sleep disturbance could result from construction noise; also, due to the relatively limited distance to existing adjacent residences, construction noise annoyance could result even during daytime hours.

Therefore, although construction of new residential units is not anticipated to exceed established noise thresholds, construction of Private Street B would exceed the construction noise limit of 75 dBA L_{eq} over an eight-hour period. Therefore, construction of on-site residential land use districts would result in **potentially significant** impact (**Impact NOI-2**) and mitigation would be required (**MM-NOI-1**).

Blasting

Blasting operations would be required for site preparation. Rock blasting is the controlled use of explosives to excavate, break down, or remove rock. The result of rock blasting is often known as a rock cut. The most commonly used explosives today are ammonium nitrate/fuel oil-based blends, due to their lower cost compared to dynamite.

No more than five blasts per day, of up to 1.2 tons of explosive each, would occur during construction activities. Blasting would only be required where existing topography or geologic conditions require blasting to be conducted, and for purposes of this analysis would be no closer to an existing residential receptor than 400 feet. This analysis also assumes a per-delay charge weight of up to 18.5 pounds that is heavily confined prior to the blast event per industry guidance (Dyno Nobel 2010). With all the delayed charges detonated in succession, the A-weighted hourly L_{eq} is estimated to be 82.2 dBA per blast. For all five blasts occurring within the same eight-hour period, the L_{eq} would be 80 dBA and exceed the City's construction noise threshold by five dBA; hence blasting noise would result in a **potentially significant** impact (**Impact NOI-3**) and mitigation would be required (**MM-NOI-2**).

Blasting involves drilling a series of boreholes and placing explosives in each hole. By limiting the amount of explosives in each hole, the blasting contractor can limit the total energy released at any single time, which in turn can reduce noise and vibration levels. Rock drilling generates impulsive noise from the striking of the hammer with the anvil within the drill body, which drives the drill bit into the rock. Rock drilling generates noise levels of approximately 81 dB L_{max} (maximum sound level during the measurement interval) at a distance of 50 feet (FHWA 2006). Given a typical work cycle, this would equate to 74 dBA L_{eq} at 50 feet. At a distance of 400 feet, consistent with the distance blast-to-receptor distance value, the drill noise would be 56 dBA L_{eq} over an eight-hour period and thus compliant with the City's construction noise limit.

Long-Term Operational Noise

Off-Site Traffic Noise Exposure

The proposed project would result in the creation of additional vehicle trips on local arterial roadways (i.e., Espola Road), which could result in increased traffic noise levels at adjacent noise-sensitive land uses. Appendix I includes a spreadsheet with traffic volume data (average daily traffic) for Espola Road. In particular, the proposed project would create additional traffic along Espola Road, which according to the Transportation Impact Analysis prepared by Linscott, Law & Greenspan for The Farm in Poway in January 2020 (Appendix J of this EIR) would add 2,938 total average daily trips to adjacent to the project site.

According to Caltrans, a three-dBA change in sound is the beginning at which humans generally notice a barely perceptible change in sound, a five-dBA change is generally readily perceptible, and a 10-dBA increase is perceived by most people as a doubling of the existing noise level (Caltrans 2013a). Due to the existing and proposed urban setting of the project site, a readily perceptible change in noise (five dBA) would be the appropriate threshold to determine significant increases in traffic noise.

Potential noise effects from vehicular traffic were assessed using the Federal Highway Administration's Traffic Noise Model version 2.5 (FHWA 2004). Information used in the model included the roadway geometry, existing (year 2019), near-term (opening day), near-term plus project, horizon year (2035) without project, and horizon year plus project traffic volumes and posted traffic speeds. Noise levels were modeled at representative noise-sensitive receivers ST1 through ST4, as shown in Figure 4.11-1. The receivers were modeled to be five feet above the local ground elevation. The noise model results are summarized in Table 4.11-13. Based on results of the model, implementation of the proposed project would not result in readily perceptible increases in traffic noise.

Table 4.11-13. Traffic Noise Modeling Results

Modeled Receiver No.	Existing (2019) Noise Level (dBA CNEL)	Near-Term (Opening Day) without Project Noise Level (dBA CNEL)	Near-Term (Opening Day) with Project Noise Level (dBA CNEL)	Horizon Year (2035) without Project Noise Level (dBA CNEL)	Horizon Year (2035) with Project Noise Level (dBA CNEL)	Maximum Project-Related Noise Level Increase (dB)
ST1	65.7	65.9	66.2	66.9	67.1	0.3
ST2	41.0	41.1	44.1	41.4	44.3	3.0
ST3	52.5	52.6	52.7	52.8	52.8	0.1
ST4	47.8	48.0	50.1	48.3	50.2	2.1

Source: Appendix I.
Notes: dBA = A-weighted decibel; CNEL = community noise equivalent level; dB = decibel.

Table 4.11-13 shows that at all four listed representative receivers, the addition of proposed project traffic to the roadway network would result in an increase in the CNEL of less than three dB, which is below the discernible level of change for the average healthy human ear. Thus, a **less-than-significant** impact is expected for proposed project-related off-site traffic noise increases affecting existing residences in the vicinity.

On-site Traffic Interior Noise Exposure

The City and the state require that interior noise levels not exceed a CNEL of 45 dB within residences. Typically, with the windows open, building shells provide approximately 15 dB of noise reduction; with windows closed, residential construction generally provides a minimum of 25 dB attenuation. Therefore, rooms exposed to an exterior CNEL not greater than 60 dB would result in an interior CNEL of 45 dB or less even with windows open. But when exterior CNEL values range from 60 to 70 dBA, the windows would need to be closed and thus require that the occupied structure feature mechanical ventilation for interior comfort. The future exterior noise levels in Table 4.11-14 are calculated at modeled positions M1, M2, and M3 on Figure 4.11-1, and correspond with the facades of three sample proposed new homes on southernmost "Cottage" lots parallel with Espola Road. Consequently, interior noise levels within these proposed future residences on the project site would be expected to achieve compliance with the interior noise criterion of 45 dBA CNEL by employing standard residential construction techniques and materials.

Table 4.11-14. Future Ambient Noise Levels at Residential Facades

Receptor Location	Noise Source	Distance from Roadway	CNEL
Backyard, Espola Road West	Espola Road	150 feet	59
Backyard, Espola Road Center	Espola Road	150 feet	59
Backyard, Espola Road East	Espola Road/Private Street A	150 feet	59

Source: Appendix I.
Note: CNEL = community noise equivalent level.

Traffic noise results displayed in Table 4.11-14 indicate that future traffic noise exposure levels at the closest building facades would all be well under the maximum exterior noise level for single-family residences (70 CNEL dBA) within the project site and would also result in an interior CNEL of 45 dB or less, even with the windows open (i.e., 59 dBA CNEL minus 15 dBA = 44 dBA CNEL). Therefore, future roadway traffic noise levels at residences would be **less than significant**.

Stationary Noise Sources

The proposed project's development would result in 160 new single-family homes and a mix of open space and recreational uses (see Figure 1-1) that would add a variety of noise-producing mechanical equipment (discussed below). Most of the noise-producing equipment would be considered stationary, or limited in mobility to a defined area. Additionally, the open space and recreational uses would attract participants and their guests (or in some situations, such activities would be open to the public) to enjoy proposed project facilities and thus create potential community noise relating to added aggregate speech and music (both acoustic and amplified) as appropriate or expected for the venue..

The Farm in Poway Specific Plan

The Specific Plan adopts noise level thresholds that are summarized by the following excerpts (The Farm in Poway LLC 2020):

- Section 3.2.3, Additional Open Space Standards, "(7) The noise level emanating from any use or activity shall not exceed 60 dBA CNEL, as the acceptable outdoor noise exposure level when measured at the exterior boundaries of the Specific Plan area unless otherwise specified herein. This may be achieved through the construction of sound attenuation barriers based upon an approved noise study."
- Section 3.2.3.B, under the description for regular events: "The aggregate sounds level from live (acoustic) or amplified music does not exceed the maximum total weighted decibel (dBA) at a distance of 10 feet as specified in Table 3.4: Event Sound Levels." For convenience, Table 3.4 is reproduced below in Table 4.11-15.

Table 4.11-15. Event Sound Levels

Venue Location and Time of Regular Event (up to 3 hours duration)	Maximum Total A-weighted Decibel (dBA) at a Distance of 10 feeta
The Barn + The Social	
Daytime (8 a.m. to 7 p.m.)	103
Evening (7 p.m. to 10 p.m.)	98
The Meadow (Amphitheater)	
Daytime (8 a.m. to 7 p.m.)	97
Evening (7 p.m. to 10 p.m.)	92

Source: The Farm in Poway LLC 2020.
Note:
[a] If speakers are positioned to distribute amplified sound, they must be positioned in such a manner that linear occlusion occurs between the speaker and the nearest residential receptors outside of the Specific Plan area.

- Section 3.2.3.C, Dog Parks, "(3) Noise shall be sound attenuated so that the noise level measured at the exterior boundaries of the Specific Plan area does not exceed 60 dBA CNEL."
- Section 3.3.3, Residential Performance Standards, "The noise level emanating from any residential use or operation within the Residential (R) Land Use Districts shall not exceed 70 dBA CNEL as the acceptable outdoor noise exposure level when measured at the property line. The interior noise levels shall not exceed 45 dBA CNEL for all residential uses."

For purposes of the noise analyses herein and consistent with the Specific Plan, it is assumed that a 70 dBA CNEL standard represents the applicable noise limit for non-transportation and non-construction "stationary" sources of noise associated with anticipated typical project-attributed operation and activities at residential land use property lines within the project site. At the property lines of off-site residential land uses that adjoin the exterior boundary of the project site, 60 dBA CNEL would be the standard for impact significance, consistent with state planning guidelines. These noise sources include operation of heating, ventilation, and air-conditioning (HVAC) equipment from the newly-created residential and non-residential land uses attributed to the proposed project.

New Residential Homes

For purposes of this analysis, each of the 160 new single-family homes would be expected to feature an air-conditioning unit having operation noise comparable to 60 dBA at 20 feet (Berger et al. 2015). Assuming these units are installed at grade and near a facade of the residence, they should be no closer than 50 feet to the nearest existing residential property and would thus be expected to yield—as a worst-case—a property line noise level of 52 dBA L_{eq} continuously throughout the day and night during hot summer conditions. At this hourly level, the corresponding CNEL value would be 59 dBA, which is less than 60 dBA CNEL standard at the exterior boundaries of the project site.

The Club

The Club is anticipated to feature a family swimming pool, yoga pavilion, locker rooms, and outdoor tennis and pickle ball courts. These facilities suggest regular, continuous operation of pool filtration pumps and air-conditioning units for the occupied interior spaces that should be no closer than 150 feet to the nearest existing noise-sensitive residential property to the west. At this distance, the combined noise level of a typical operating pump (assume source level of 80 dBA L_{eq} at three feet [Bies and Hansen 1996]) and a commercial rooftop condenser unit (source level of 74 dBA at three feet [Johnson Controls 2010]) would be 47 dBA L_{eq}, which translates to 54 dBA CNEL (assuming continuous operation of equipment through nighttime hours, to keep the pool clean and The Club interior climate-controlled) and thus less than the 60 dBA CNEL standard at the exterior boundaries of the project area.

Residents and their guests enjoying the outdoor pool and ball courts during daytime hours would likely raise their voices while doing so. For purposes of this analysis, up to 100 participants (44 at the ball courts, and another 56 in or at the pool area) with individual speech levels of 66 dBA at three feet (Hayne et al. 2006) recreating outdoors at an average distance of 150 feet from the nearest noise-sensitive receptor to the west would result in an aggregate hourly sound level of 52 dBA L_{eq}, which translates to 52 dBA CNEL (assuming no operation during nighttime hours) and thus less than the 60 dBA CNEL standard at the exterior boundaries of the project site.

Anticipated noise due to pickle ball play from a single court is estimated to be 54 dBA L_{eq} at a distance of 80 feet, based on prior Dudek project experience and generally consistent with measurement data from publicly available sources (Spendiarian and Willis 2012). Assuming up to eight pickle ball courts, on average, would experience concurrent play from residents, guests, and visitors, the predicted noise exposure at the nearest existing residential receiver to the west (at a distance of 150 feet, representing the average distance if pickle ball play was considered as a single-point source) would be 55 dBA, which translates to 55 dBA CNEL (assuming no play during nighttime hours) and thus less than the 60 dBA CNEL standard at the exterior boundaries of the project site.

In aggregate, sound from these three sources (operation of mechanical equipment, speech from The Club attendance, and pickle ball play) would logarithmically combine into an hourly level of 57 dBA L_{eq}, which translates into 58 dBA CNEL and thus less than the 60 dBA CNEL standard at the western boundary adjoining off-site residences.

The Butterfly Farm

The Butterfly Farm is expected to include a butterfly vivarium, greenhouse, classroom, and associated office/maintenance support space. These facilities would require ventilation and air-conditioning units that should be located no closer than 350 feet to the nearest existing noise-sensitive residential property to the east. At this distance, the combined noise level of a typical axial-flow box-type ventilation fan (84 dBA L_{eq} at three feet, calculated from 22,575 cubic feet per minute [Farmtek n.d.]) and a commercial rooftop condenser unit (source level of 74 dBA at three feet [Johnson Controls 2010]) would be 43 dBA L_{eq}, which translates to 50 dBA CNEL (assuming 24-hour operation as a worst-case scenario) and thus less than the 60 dBA CNEL standard at the exterior boundaries of the project site.

Residents and their guests enjoying the outdoor garden and picnic area during daytime hours would likely raise their voices while doing so. For purposes of this analysis, up to 50 participants with individual speech levels of 66 dBA at three feet (Hayne 2006) recreating outdoors at an average distance of 400 feet from the nearest noise-sensitive receptor to the east would result in an aggregate hourly sound level of 38 dBA L_{eq}, which translates to 40 dBA CNEL (assuming no operation during nighttime hours) and thus less than the 60 dBA CNEL standard at the exterior boundaries of the project site. Hence, noise impact attributed to operation of equipment used to serve facilities at the Butterfly Farm, as well as residents and guests enjoying the facilities at the Butterfly Farm, would be less than significant.

The Event Barn and The Social

The Event Barn and The Social—included in The Barn component of the proposed project—would be located northeast of the proposed project entrance across from Martincoit Road. These locations would be used as venues for weekday and weekend weddings, farmer's markets, concerts, fairs, and other hosted private and public gatherings. The two detached structures would be expected to feature HVAC systems (to provide ventilation and air-conditioning for interior spaces) functionally similar to those assumed for the Butterfly Farm. However, the nearest existing residential receptor to this operating equipment would likely be south of Espola Road, approximately 200 feet away. At this distance, the estimated aggregate HVAC equipment noise level would be 48 dBA L_{eq}, which translates to 55 dBA CNEL (assuming 24-hour operation as a worst-case scenario) and thus less than the 60 dBA CNEL standard at the exterior boundaries of the project area. Hence, noise impact from operation of these equipment serving the facilities at The Event Barn and The Social would be less than significant.

According to the Specific Plan, the hosted events would not normally last beyond 10 p.m., and any that do would require a Special Use Permit per 3.2.3.B.2 of the Specific Plan Additional Open Space Standards (The Farm in Poway LLC 2020). The number of participants at hosted events could be as high as 300, and this analysis assumes that individual average speech levels of up to 66 dBA at three feet (Hayne 2006) could occur. To help illustrate a sample outdoor event noise scenario, Appendix I shows the predicted noise propagation out to the community from the following assumed sound sources and sound-blocking features:

- Two pole-mounted outdoor speaker systems, each six feet in height above grade, are positioned at the southwest and southeast corners of The Barn and each emit an average sound level of up to 100 dBA L_{eq} at a distance of approximately 10 feet, comparable to an amplified guitar (on stage with the performer using ear monitors [Darling n.d.]).
- An attendance of 300, with individual speech level at 66 dBA L_{eq} at three feet each, is distributed south of the buildings' southern facades and over the event lawn north of the proposed curved Event Barn Lawn wall.
- The Event Barn Lawn wall, a stone barrier topped with glass panels and having an extent shown in the Specific Plan, is assumed to be eight feet in height above grade.

Under these assumed conditions, predicted dominant noise from the pair of speakers operating during a "regular event" (per 3.2.3.B of the Specific Plan Additional Open Space Standards) would cause sound levels at the nearest noise-sensitive receptor (an existing residential property on the south side of Espola Road, just 180 feet away from the Event Barn Lawn wall) to reach up to 69 dBA hourly L_{eq}. At this estimated sound level, a regular three-hour event could transpire during the allowable daytime hours (9 a.m. to 3 p.m. on any weekday, except holidays) and still result in a CNEL value compliant with the 60 dBA CNEL standard and thus represent a less-than-significant noise impact to the community. If the three-hour event were to occur during evening hours (i.e., between 7 p.m. and 10 p.m.), the resulting CNEL at the same existing off-site receptor would be 65 dBA CNEL and thus need a five dB reduction at each of the two speakers in order to comply with the 60 dBA CNEL off-site standard.

At the nearest proposed on-site residential lot to the west of The Barn, approximately 120 feet away, the sound exposure from the three-hour regular event during daytime hours would be as high as 74 dBA hourly L_{eq} at a second-story listener position—a receptor location, such as a bedroom window, at the end of a direct sound path that may not be occluded by The Barn wall. At this magnitude during daytime hours, the resulting CNEL value would be 65 dBA; and, for an evening event, the CNEL would be 60 dBA. Both of these predicted on-site residential façade levels would be compliant with the 70 dBA CNEL limit per the Specific Plan.

During "special events" (per 3.2.3.B of the Specific Plan Additional Open Space Standards) requiring a temporary permit that could occur during nighttime hours and/or last for more than three hours duration, the same two speakers (at 100 dBA at 10 feet each) and speech from 50 to 300 guests would risk exceeding the off-site receptor standard of 60 dBA CNEL and require mitigation. For example, a three-hour special event hosted between 10 p.m. and 1 a.m. would result in 70 dBA CNEL at the nearest existing residence south of Espola Road; thus, compliance during such nighttime hours would require that the two speakers have their amplified sound levels reduced by 10 dBA each. At the resulting 90 dBA at 10 feet per speaker, the scale and type of event would likely need to be different: 100 dBA at 10 feet would be consistent with an amplified guitar, but 90 dBA at 10 feet would be compatible with live, unamplified vocalists or a playing classical instruments (e.g., four-piece band). Given such considerations, a variety of special event possibilities could risk exceeding the 60 dBA CNEL off-site standard and/or the on-site residential outdoor limit of 70 dBA CNEL and thus result in a **potentially significant** impact (**Impact NOI-4**) requiring mitigation (**MM-NOI-3**).

The Meadow

According to the Specific Plan, outdoor concerts may be performed at The Meadow area, which is bounded by a planned on-site slope and open space to the north, Private Street D to the south, Private Street A to the west, and new residential lots to the east. Similar to the sample event modeled for The Barn and The Social venue, Appendix I shows the predicted noise propagation out to the community from the following assumed sound sources and sound-blocking features:

- Two pole-mounted outdoor speaker systems, six feet in height above grade, are positioned slightly northeast of the geographic center of The Meadow event lawn and each emit an average sound level of up to 94 dBA L_{eq} at a distance of approximately 10 feet.
- An attendance of 300, with individual speech level at 66 dBA L_{eq} at three feet each, is distributed across the event lawn south of the two speakers.
- A stone barrier topped with glass panels, totaling eight feet in height above grade, protects the nearest new residence (#105 per the proposed project site plan) by extending along its lot boundary from the north edge of Private Street D to the western edge of the open space.

Under these assumed conditions, predicted dominant noise from the pair of speakers operating during a "regular event" would cause sound levels at the nearest noise-sensitive receptor (an existing residential property 100 feet south of The Meadow beyond Private Street D) to attain 64 dBA L_{eq}. At this estimated sound level, a regular event could transpire for up to three hours during the daytime period and result in a CNEL value of 55 dBA. A similar regular event during evening hours would yield a CNEL value of 60 dBA at the exterior boundaries of the project site. Both CNEL values would be compliant with the 60 dBA CNEL standard and thus represent a less-than-significant noise impact to the neighboring off-site community.

At the nearest proposed on-site residential lot easterly adjacent to The Meadow, the sound exposure from the event would be as high as 72 dBA L_{eq} at a second-story listener position. At this magnitude, the same regular event during daytime hours would be 63 dBA CNEL. In the evening, a comparable three-hour event would yield 68 dBA CNEL at the same second-story receptor. Both values are less than 70 dBA CNEL limit per the Specific Plan for on-site residential use boundaries.

During "special events" (per 3.2.3.B of the Specific Plan Additional Open Space Standards), the aggregate sound from live or amplified music from a well-attended event at The Meadow venue could occur during nighttime hours. Using the same sample event scenario conditions as described for regular events, a three-hour special event at night would not meet the 60 dBA CNEL off-site threshold at the edge of existing residential land use 100 feet south of The Meadow. By way of example, the CNEL at the nearest off-site residence would be 65 dBA and thus require at least five dB of sound reduction at each of the two speakers. Given such considerations, a variety of special event possibilities could risk exceeding the 60 dBA CNEL off-site standard and/or the on-site residential outdoor limit of 70 dBA CNEL and thus result in a **potentially significant** impact (**Impact NOI-5**) requiring mitigation (**MM-NOI-4**).

The Working Farm

The Working Farm would be expected to involve typical agricultural equipment operating as close as 60 feet to adjacent residential property. At this distance, noise levels could range from 55 dBA L_{max} for a pickup truck and up to 84 dBA L_{max} for a tractor (FHWA 2006). However, Section 8.08.170.E from the City's Noise Ordinance exempts agricultural operations so long as they occur during daytime hours (7 a.m. to 7 p.m.) or are performed for crop protection (City of Poway 2019). But to yield noise exposure levels at the adjoining off-site residential properties that meet the Specific Plan's exterior project area property line standard of 60 dBA CNEL, hours of operation for the noisiest expected on-site equipment would need to be limited. By way of example, a tractor could operate for up to two hours (during the aforementioned allowable daytime period) at an average working distance of no less than 150 feet from a receptor point along the exterior project site property line and result in a noise level less than 60 dBA CNEL. Quieter equipment, such as a flatbed truck (L_{max} = 74 dBA at 50 feet), could operate for all 12 daytime hours at this same average working distance and yield a noise level compliant with this adopted standard.

The Dog Park

The Dog Park is a designated area southwest of The Meadow and approximately 150 feet north of the nearest off-site existing residence abutting Cloudcroft Court. Assuming up to four dogs may be barking (each bark considered comparable to 100 dBA L_{max} at one meter [Helmut 2019]) intermittently (no more than 12 barks each per hour) during a typical daytime hour when the area would be available for usage, at this distance of 150 feet to the Specific Plan boundary the estimated CNEL would be less than 45 dBA and thus compliant with the off-site residential property line standard.

The Tot Lot

The Tot Lot is a designated area north of The Butterfly Farm and approximately 150 feet south-southeast of the nearest off-site existing residence abutting St. Andrews Drive. Assuming up to eight children may be yelling during excited play (each yell considered comparable to a human shout [90 dBA L_{max} at three feet] [Hayne 2006]) intermittently (no more than 12 shouts each per hour) during a typical daytime hour when the area would be available for usage, at this distance of 150 feet to the Specific Plan boundary the estimated CNEL would be less than 40 dBA and thus compliant with the off-site residential property line standard.

For two on-site future residential "Cottage" lots that adjoin The Tot Lot to the southwest, the playing children would be much closer—potentially 50 feet, on average. At this time-averaged distance, the yelling children would result in a noise level of 48 dBA CNEL and thus be compliant with the Specific Plan performance standard of 70 dBA CNEL.

Since predicted noise levels associated with The Working Farm, Dog Park, and Tot Lot appear to be compliant with the appropriate Specific Plan performance standard(s), noise impacts from these proposed project features would be **less than significant**.

Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction activities may expose persons to excessive groundborne vibration or groundborne noise, causing a potentially significant impact. Caltrans has collected groundborne vibration information related to construction activities that indicates that continuous vibrations with a PPV of approximately 0.2 ips is considered "annoying" (Caltrans 2013b). For context, heavier pieces of construction equipment—such as a bulldozer that may be used during proposed construction activities—have PPVs of approximately 0.089 ips or less at a reference distance of 25 feet (DOT 2006).

Groundborne vibration attenuates rapidly, even over short distances. And when groundborne vibration encounters a building foundation, a coupling loss occurs depending on the mass and design. For typical wood-framed houses, like those near the project site, this coupling loss is five vibration velocity dB according to Federal Transit Administration guidance (FTA 2006). The attenuation of groundborne vibration as it propagates from source to receptor through intervening soils and rock strata can be estimated with expressions found in Federal Transit Administration and Caltrans guidance. By way of example, for a bulldozer operating on site and as close as the western project site boundary (i.e., 15 feet from the nearest receiving noise-sensitive land use) the estimated vibration velocity level would be 0.19 ips and thus no greater than the annoyance threshold recommended by Caltrans.

Construction vibration, at sufficiently high levels, can also present a building damage risk. However, anticipated construction vibration from conventional heavy equipment associated with this proposed project would not yield levels that surpass this risk. Per Caltrans, the recommended PPV threshold is 0.5 ips for newer residential structures and 0.3 ips for older residential structures—both of which are less stringent that the aforementioned threshold to annoy occupants of such structures.

For blasting events associated with project construction, Caltrans offers different "transient event" guidance: 0.5 ips PPV for "repeated" blasts where the class of receiving structure would be comparable to "relatively old residential structures in poor condition" (Caltrans 2013b). Detonation of an 18.5-pound, heavily confined, per-delay charge would be predicted to result in a groundborne vibration velocity level of 0.5 ips PPV at a residential receptor no closer than 400 feet away.

Once operational, the proposed project would not be expected to feature major producers of groundborne vibration. Anticipated mechanical systems like HVAC units are designed and manufactured to feature rotating (fans, motors) and reciprocating (compressors) components that are well balanced with isolated vibration within or external to the equipment casings.

Therefore, potential vibration-induced annoyance to occupants of nearby existing homes and potential vibration damage risk to nearby structures due to conventional construction and blasting activities, and potential vibration due to proposed project operation would be **less than significant**.

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

There are no private airstrips within the vicinity of the project site. The closest airport to the proposed project site is the Ramona Municipal Airport, approximately 6.25 miles northeast of the site, which would therefore not expose people residing or working in the project area to excessive noise levels. Impacts would be **less than significant**.

The proposed project's noise impacts are listed as follows:

Impact NOI-1 During proposed grading activities for the on-site trail system that are expected as close as 25 feet to off-site noise-sensitive receptors, and retention basin construction involving the assemblage of equipment working right at the edge of the construction zone in each phase and within 15 feet of existing residences, construction noise levels are anticipated to exceed the City's construction noise limit of 75 dBA L_{eq} over an eight-hour period.

Impact NOI-2 Regarding proposed construction of Private Street B, when the entire assemblage of construction equipment is working right at the edge of the construction zone in each phase, within 36 feet of existing residences, construction noise levels are anticipated to reach up to 78 dBA L_{eq}. Assuming relatively steady work, this would result in an exceedance of the City's construction noise limit of 75 dBA L_{eq} over an eight-hour period.

Impact NOI-3 Regarding proposed rock blasting event noise, at 400 feet of existing off-site residences, eight-hour noise levels are anticipated to reach up to 80 dBA L_{eq}. Assuming a heavily confined per-delay charge weight of 18.5 pounds, this would result in an exceedance of the City's construction noise limit of 75 dBA L_{eq} over an eight-hour period.

Impact NOI-4 Regarding The Event Barn and The Social, under the right conditions the occurrence and duration of regular events could risk exceeding the required off-site residential land use threshold of 60 dBA CNEL as identified by the Specific Plan. The on-site noise limit of 70 dBA CNEL may also be exceeded under the right conditions. At the same venue, the occurrence, type, intensity and duration of special events (especially those during nighttime hours) would also risk exceeding the same standards.

Impact NOI-5 Regarding The Meadow (Amphitheater), under the right conditions the occurrence and duration of regular events could risk exceeding the required off-site residential land use threshold of 60 dBA CNEL as identified by the Specific Plan. The on-site noise limit of 70 dBA CNEL may also be exceeded under the right conditions. At the same venue, the occurrence, type, intensity, and duration of special events (especially those during nighttime hours) would also risk exceeding the same standards.

4.11.5 Cumulative Impacts

Noise levels tend to diminish quickly with distance from a source; therefore, the geographic scope for the analysis of cumulative impacts related to noise was limited to locations within proximity to noise-generating operational components and construction equipment. Implementation of the proposed project would result in significant noise impacts associated with the combination of construction activities and stationary noise sources. However, noise is a localized occurrence and attenuates rapidly with distance. Therefore, only future development projects in the direct vicinity of the project site could add to construction- or stationary-source noise generated by the proposed project and result in a cumulative noise impact.

Excessive Noise Levels

A cumulative noise impact would occur if development associated with cumulative projects would expose new land uses to noise levels that exceed proposed noise compatibility guidelines. Cumulative projects within the region would be subject to regulations that require compliance with noise standards, including Title 24, and the City's applicable Noise Ordinance and General Plan policies. Looking at the cumulative projects in the area, the distance to the nearest approved project is approximately 3.7 miles away, which would make cumulatively considerable noise impacts unlikely. In this case, the noise from added cars to roadways would not travel far enough to create excessive noise levels in the project area. Additionally, approved projects would be subject to the same noise policies and ordinances as would apply to the proposed project. Therefore, the proposed project **would not result in a cumulatively considerable contribution** to excessive noise levels.

Excessive Groundborne Vibration

A cumulative groundborne vibration impact would occur if one or more projects in the area would result in combined groundborne vibration that would increase vibration to a level that would result in sleep disturbance or interfere with activities at vibration-sensitive land uses (e.g., precision labs, surgical facilities). Groundborne vibration impacts could result from construction operations, railroad operations, or mining. The proposed project's construction activity would not include pile driving, and there are no sensitive operations (e.g., precision research labs) within 200 feet of the project site boundaries. Consequently, the proposed project **would not result in a cumulatively considerable contribution** related to excessive groundborne vibration.

Permanent Increase in Ambient Noise Levels

A cumulative noise impact would occur if construction and development associated with cumulative regional land use projects, such as those identified in adjacent city and county general plans and regional transportation plans, would result a permanent increase in ambient noise that exceeds the applicable noise standards on roadways throughout the region. At this time, it is assumed that the approved near-term projects said to be completed by 2025 would be outside of the proposed project's noise influence area. That said, the closest near-term approved project would be The Junipers Senior Development located approximately 3.75 miles from the proposed project. The construction and operation of The Junipers project would have no impact on ambient noise levels, and therefore, would **not result in a cumulatively considerable impact.**

Temporary Increase in Ambient Noise Levels

A cumulative temporary noise impact would occur if one or more cumulative projects in close proximity to one another would be constructed at the same time and result in combined construction noise levels that exceed 75 dBA. With respect to construction noise, construction sites that are located within approximately one-quarter mile of one another would have the potential to cause an increase in noise exposure levels for receptors located near each of the sites, compared to a single construction project occurring at a single point in time. Based on the list of cumulative projects (as taken from Appendix J), it is not anticipated that another project would be actively under construction within one-quarter mile of the project site during the same construction period as the proposed project. Although the proposed project would result in exceedance of the City's construction noise limit of 75 dBA L_{eq}, there is no currently proposed or approved construction projects that would occur within one-quarter mile of the project site during the same timeframe. The closest project is located 3.75 miles away and thus, temporary increases in ambient noise levels would **not be cumulatively considerable**.

Excessive Noise Exposure from Airports

Noise related to airports is generally site specific and not cumulative in nature. The placement of a structure within the noise contours of a public airport or in close proximity to a private airstrip would not affect airport noise related to the placement of another cumulative project. The proposed project is not within the vicinity of a public or private airport; therefore, **no cumulative impact** would occur.

4.11.6 Mitigation Measures

The following mitigation measures would be implemented to reduce potentially significant impacts to less than significant.

MM-NOI-1 Prior to the issuance of a Construction Permit, the project applicant/owner or construction contractor shall prepare and submit to the City of Poway Planning Division for its review and approval a Construction Noise Management Plan (CNMP). Prior to the issuance of a Construction Permit, construction plans shall also include a note indicating compliance with the CNMP is required. The CNMP shall be prepared or reviewed by a qualified acoustician (retained at the project applicant/owner or construction contractor's expense) and feature the following:

1) A detailed construction schedule, at daily (or weekly, if activities during each day of the week are typical) resolution and correlating to areas or zones of on-site project construction activities and the anticipated equipment types and quantities involved. Information shall include expected hours of actual operation per day for each type of equipment per phase and indication of anticipated concurrent construction activities on site.
2) Suggested locations of a set of noise-level monitors, attended by a qualified acoustician or another party under his/her supervision or direction, at which sample outdoor ambient noise levels will be measured and collected over a sufficient sample period and subsequently analyzed (i.e., compared with applicable time-dependent A-weighted decibel [dBA] thresholds) to ascertain compliance with the eight-hour City of Poway threshold of 75 dBA equivalent noise level over a consecutive eight-hour period. Sampling shall be performed, at a minimum, on the first (or otherwise considered typical construction operations) day of each distinct construction phase

(e.g., each of the five listed phases in Table 4.11-2, Construction Phase Distance to Nearest Pre-Existing Noise-Sensitive Receptors).

3) If sample collected noise level data indicates that the eight-hour noise threshold has or will be exceeded, construction work shall be suspended (for the activity or phase of concern) and the project applicant/owner or construction contractor shall implement one or more of the following measures as detailed or specified in the CNMP:

   a) Administrative controls (e.g., reduce operating time of equipment and/or prohibit usage of equipment type[s] within certain distances).

   b) Engineering controls (upgrade noise controls, such as install better engine exhaust mufflers).

   c) Install noise abatement on the project site boundary fencing (or within the project site, as practical and appropriate) in the form of sound blankets or comparable temporary barriers to occlude construction noise emission between the project site (or specific equipment operation as the situation may define) and the noise-sensitive receptor(s) of concern.

   The implemented measure(s) shall be reviewed or otherwise inspected and approved by the qualified acoustician (or another party under his/her supervision or direction) prior to resumption of the construction activity or process that caused the measured noise concern or need for noise mitigation. Noise levels shall be re-measured, after installation of said measures, to ascertain post-mitigation compliance with the noise threshold. As needed, this process shall be repeated and refined until noise level compliance is demonstrated and documented. A report of this implemented mitigation and its documented success shall be provided to the City of Poway Planning Division.

4) The project applicant/owner or construction contractor shall make available a telephone hotline so that concerned neighbors in the community may call to report noise complaints. The CNMP shall include a process to investigate these complaints and, if determined to be valid, detail efforts to provide a timely resolution and response to the complainant—with copy of resolution provided to the City of Poway Planning Division.

MM-NOI-2 The project applicant/owner or its construction contractor(s) shall prepare, or cause to be prepared, a blasting/drilling monitoring plan. The plan shall be site specific, based on general and exact locations of required blasting and the results of a project-specific geotechnical investigation. The blasting plan shall include a description of the planned blasting methods, an inventory of receptors potentially affected by the planned blasting, and calculations to determine the area affected by the planned blasting that include estimates of the pre-blast drill noise levels, air-blast overpressure sound levels, and groundborne vibration levels at each residence within 500 feet of a blasting location. Where potential exceedances of relevant noise and vibration exposure limits are identified, the blasting/drilling monitoring plan shall identify mitigation measures shown to effectively reduce noise and vibration levels (e.g., altering orientation of blast progression, increased delay between charge detonations, pre-splitting) to be implemented in order to demonstrate compliance with these thresholds. Additionally, all project phases involving blasting shall conform to the following requirements:

1. All blasting shall be performed by a blast contractor and blasting personnel licensed to operate per appropriate regulatory agencies.
2. Prior to blasting, a qualified geotechnical professional shall inspect and document the existing conditions of facades and other visible structural features or elements of the nearest residential buildings. Should this inspector determine that some structural features or

elements appear fragile or otherwise potentially sensitive to vibration damage caused by the anticipated blasting activity, the maximum per-delay charge weights and other related blast parameters shall be re-evaluated to establish appropriate quantified limits.

3. Each blast shall be monitored and recorded with an air-blast overpressure monitor and groundborne vibration accelerometer that is located outside the closest residence to the blast. This data shall be recorded, and a post-blast summary report shall be prepared and be available for public review or distribution as necessary.
4. Blasting shall not exceed 0.5 inches per second peak particle velocity at the nearest occupied residence, in accordance with the California Department of Transportation's Transportation and Construction Vibration Guidance Manual.
5. To ensure that potentially impacted residents are informed, the applicant shall provide notice by mail to all property owners within 1,000 feet of the project at least one week prior to a scheduled blasting event.
6. Pre-blast drilling operations associated with blasting preparations shall be performed in a manner consistent with adherence to City of Poway regulations and guidance.

MM-NOI-3 Operation of any "regular event" at The Event Barn (and The Social), as defined by 3.2.3.B of The Farm in Poway Specific Plan Additional Open Space Standards, shall conform to the following acoustical conditions:

1) Daytime (within 8 a.m. to 7 p.m.)

   a) Attendance shall not exceed 300, including residents, guests, visitors, and any on-site support staff that host the event in progress.

   b) Event duration shall not exceed a cumulative total of three hours.

   c) The aggregate sound level from live (acoustic) or amplified music shall not exceed a total of 103 A-weighted decibel (dBA) at a distance of 10 feet. If speakers are positioned to distribute the amplified sound, they must be positioned in such a manner that The Event Barn Wall provides linear occlusion between the speaker and the nearest existing residential receptors south of Espola Road.

   d) If any proposed event parameters above are not listed or may exceed the indicated constraints, then a qualified acoustician shall prepare or review a predictive sound propagation analysis prior to the proposed event in order to identify need for recommended noise control or sound abatement implantation measures that could include (but not be limited to):

      i. Via the pre-installed house audio-visual (A/V) system or on A/V hardware supplied by the hosted event performers, set electronic controls on amplified sound levels to comply with recommended front-of-stage and/or property line expectations.

      ii. Install temporary noise walls, curtains, or other barrier forms so as to improve containment and absorption of sound within The Event Barn Lawn venue space and minimize spill-over noise to the property line and community beyond.

      iii. Install on-site sound level measurement systems (e.g., akin to NTiAudio or comparable supplier technology) to monitor event sound levels in real-time and provide alerts to event hosts and administrators. Collected data and alerts offer opportunity to provide feedback to event performers as part of implementing administrative control of sound emission levels.

Collected data from 1.d.iii can also provide documentation that an event was fully compliant with required sound limits at the property line(s), and might be used to support assertions that future events having identical conditions (e.g., an annual seasonal festival) would also be compliant and thus waive the need for additional monitoring (at the discretion or approval of the City of Poway).

2) Evening (7 p.m. to 10 p.m.)

   a) Attendance shall not exceed 300, including residents, guests, visitors, and any on-site support staff that host the event in progress.

   b) Event duration shall not exceed a cumulative total of three hours.

   c) The aggregate sound level from live (acoustic) or amplified music shall not exceed a total of 98 dBA at a distance of 10 feet. If speakers are positioned to distribute the amplified sound, they must be positioned in such a manner that The Event Barn Wall provides linear occlusion between the speaker and the nearest existing residential receptors south of Espola Road.

   d) If any proposed event parameters above are not listed or may exceed the indicated constraints, then a qualified acoustician shall prepare or review a predictive sound propagation analysis prior to the proposed event in order to identify need for recommended noise control or sound abatement implantation measures that could include (but not be limited to):

      i. Via the pre-installed house A/V system or on A/V hardware supplied by the hosted event performers, set electronic controls on amplified sound levels to comply with recommended front-of-stage and/or property line expectations.

      ii. Install temporary noise walls, curtains, or other barrier forms so as to improve containment and absorption of sound within The Event Barn Lawn venue space and minimize spill-over noise to the property line and community beyond.

      iii. Install on-site sound level measurement systems (e.g., akin to NTiAudio or comparable supplier technology) to monitor event sound levels in real-time and provide alerts to event hosts and administrators.

   Collected data from 2.d.iii can also provide documentation that an event was fully compliant with required sound limits at the property line(s), and might be used to support assertions that future events having identical conditions (e.g., an annual seasonal festival) would also be compliant and thus waive the need for additional monitoring (at the discretion or approval of the City of Poway).

3) Conduct of a “special event” (i.e., that is not considered a “regular event”) at The Event Barn (and The Social), as defined by 3.2.3.B of The Farm in Poway Specific Plan Additional Open Space Standards, shall require a City-approved Temporary Use Permit. At the City’s discretion, the Temporary Use Permit application may require the approval of a predictive sound propagation analysis prepared by a qualified acoustician to identify recommended noise control and sound abatement implementation measures that—as implemented properly by the permit applicant—would be expected to result in event-attributed noise levels that are compliant with the Farm in Poway Specific Plan Additional Open Space Standards as follows:

   a) No greater than 60 dBA CNEL at the property lines of existing residential receptors adjoining the project site; and,

   b) No greater than 70 dBA CNEL at the property lines of on-site residential receptors within the project site.

MM-NOI-4 Operation of any "regular event" at The Meadow (Amphitheater), as defined by 3.2.3.B of The Farm in Poway Specific Plan Additional Open Space Standards, shall conform to the following acoustical conditions:

1) Daytime (within 8 a.m. to 7 p.m.)
    a) Attendance shall not exceed 300, including residents, guests, visitors, and any on-site support staff that host the event in progress.
    b) Event duration shall not exceed a cumulative total of three hours.
    c) The aggregate sound level from live (acoustic) or amplified music shall not exceed a total of 97 A-weighted decibel (dBA) at a distance of 10 feet. If speakers are positioned to distribute the amplified sound, they must be positioned in such a manner that The Event Barn Wall provides linear occlusion between the speaker and the nearest existing residential receptors south of Espola Road.
    d) If any proposed event parameters above are not listed or may exceed the indicated constraints, then a qualified acoustician shall prepare or review a predictive sound propagation analysis prior to the proposed event in order to identify need for recommended noise control or sound abatement implantation measures that could include (but not be limited to):
        i. Via the pre-installed house audio-visual (A/V) system or on A/V hardware supplied by the hosted event performers, set electronic controls on amplified sound levels to comply with recommended front-of-stage and/or property line expectations.
        ii. Install temporary noise walls, curtains, or other barrier forms so as to improve containment and absorption of sound within The Event Barn Lawn venue space and minimize spill-over noise to the property line and community beyond.
        iii. Install on-site sound level measurement systems (e.g., akin to NTiAudio or comparable supplier technology) to monitor event sound levels in real-time and provide alerts to event hosts and administrators. Collected data and alerts offer opportunity to provide feedback to event performers as part of implementing administrative control of sound emission levels.

    Collected data from 1.d.iii can also provide documentation that an event was fully compliant with required sound limits at the property line(s), and might be used to support assertions that future events having identical conditions (e.g., an annual seasonal festival) would also be compliant and thus waive the need for additional monitoring (at the discretion or approval of the City of Poway).

2) Evening (7 p.m. to 10 p.m.)
    a) Attendance shall not exceed 300, including residents, guests, visitors, and any on-site support staff that host the event in progress.
    b) Event duration shall not exceed a cumulative total of three hours.
    c) The aggregate sound level from live (acoustic) or amplified music shall not exceed a total of 92 dBA at a distance of 10 feet. If speakers are positioned to distribute the amplified sound, they must be positioned in such a manner that The Event Barn Wall provides linear occlusion between the speaker and the nearest existing residential receptors south of Espola Road.

d) If any proposed event parameters above are not listed or may exceed the indicated constraints, then a qualified acoustician shall prepare or review a predictive sound propagation analysis prior to the proposed event in order to identify need for recommended noise control or sound abatement implantation measures that could include (but not be limited to):

i. Via the pre-installed house A/V system or on A/V hardware supplied by the hosted event performers, set electronic controls on amplified sound levels to comply with recommended front-of-stage and/or property line expectations.

ii. Install temporary noise walls, curtains, or other barrier forms so as to improve containment and absorption of sound within The Event Barn Lawn venue space and minimize spill-over noise to the property line and community beyond.

iii. Install on-site sound level measurement systems (e.g., akin to NTiAudio or comparable supplier technology) to monitor event sound levels in real-time and provide alerts to event hosts and administrators.

Collected data from 2.d.iii can also provide documentation that an event was fully compliant with required sound limits at the property line(s), and might be used to support assertions that future events having identical conditions (e.g., an annual seasonal festival) would also be compliant and thus waive the need for additional monitoring (at the discretion or approval of the City of Poway).

3) Conduct of a "special event" (i.e., that is not considered a "regular event") at The Meadow, as defined by 3.2.3.B of The Farm in Poway Specific Plan Additional Open Space Standards, shall require a City-approved Temporary Use Permit. At the City's discretion, the Temporary Use Permit application may require the approval of a predictive sound propagation analysis prepared by a qualified acoustician to identify recommended noise control and sound abatement implementation measures that—as implemented properly by the permit applicant—would be expected to result in event-attributed noise levels that are compliant with The Farm in Poway Specific Plan Additional Open Space Standards as follows:

a) No greater than 60 dBA CNEL at the property lines of existing residential receptors adjoining the project site; and,

b) No greater than 70 dBA CNEL at the property lines of on-site residential receptors within the project site.

4.11.7 Level of Significance After Mitigation

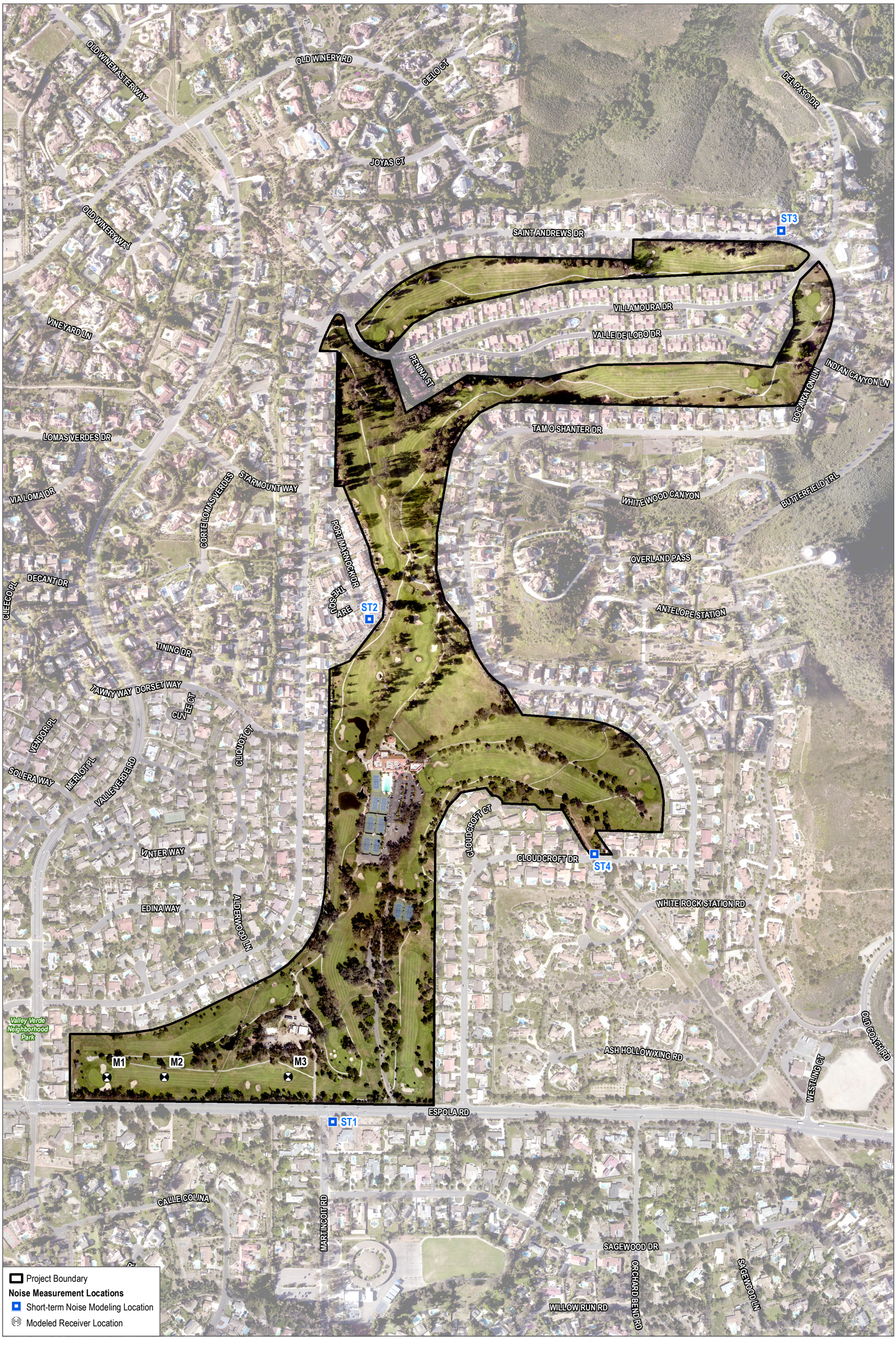
In order to reduce potentially significant construction noise impacts upon existing residences in the project vicinity, mitigation measure **MM-NOI-1** shall be implemented as indicated site conditions may warrant. Proper application of temporary noise barriers or comparable sound abatement that may arise as a result of **MM-NOI-1** implementation has the ability to realize a 10-dB reduction in noise levels that would correspondingly reduce the predicted 85 dBA eight-hour L_{eq} during construction of the basins (**Impact NOI-1**), and the predicted 78 dBA eight-hour L_{eq} during construction of Private Street B (**Impact NOI-2**) to a level of 75 dBA L_{eq}, which would be compliant with the 75 dBA threshold. With implementation of **MM-NOI-1**, Impact NOI-1 and Impact NOI-2 would be reduced to a **less-than-significant** level.

When implemented properly, mitigation measure **MM-NOI-2** would keep noise and vibration from blasting events associated with project construction (**Impact NOI-3**) below appropriate thresholds and thus result in **less-than-significant** impacts.

Implementation of **MM-NOI-3** for hosted "regular" and "special" events at The Event Barn (plus The Social), would help keep event-attributed noise from exceeding off-site 60 dBA CNEL and on-site 70 dBA CNEL thresholds, thereby reducing this potential project operations noise impact (**Impact NOI-4**) to a **less-than-significant** level.

Implementation of **MM-NOI-4** for hosted "regular" and "special" events at The Meadow (Amphitheater), would help keep event-attributed noise from exceeding off-site 60 dBA CNEL and on-site 70 dBA CNEL thresholds, thereby reducing this potential project operations noise impact (**Impact NOI-5**) to a **less-than-significant** level.

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SOURCE: SANGIS 2017, 2019

DUDEK

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FIGURE 4.11-1

Noise Measurement Locations

The Farm in Poway

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4.12 Population and Housing

This section describes the existing population and housing conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures, if necessary, related to implementation of the proposed project.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, no comment letters related to population and housing were received.

The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this Environmental Impact Report (EIR).

4.12.1 Existing Conditions

Population

The San Diego Association of Governments (SANDAG) is the council of governments and metropolitan planning organization responsible for developing demographic projections, including population, household, and employment projection for jurisdictions in the County of San Diego (County), including for the City of Poway (City). SANDAG is required to update these forecasts every four years.

According to SANDAG's Series 13 Regional Growth Forecast population estimates, the County supported 3,095,313 people as of 2010. By 2050, the County's population is expected to reach over 4 million (SANDAG 2013). According to SANDAG estimates, the City of Poway supported 47,811 residents in 2010, and its population is expected to reach 50,010 by 2020, and 52,860 by 2050 (SANDAG 2013). According to the U.S. Census Bureau, population for the City of Poway was 49,704 on July 1, 2018 (U.S. Census Bureau 2018).

Housing

According to SANDAG Series 13 Regional Growth Forecast housing estimates for the County, there were 1,158,076 total housing units as of 2010 (SANDAG 2013). By 2050, the County is forecasted to have approximately 1,491,804 total housing units (SANDAG 2013). According to the SANDAG Growth Forecast, the City of Poway had 16,476 total housing units in 2010, with single-family housing units accounting for 12,862 (SANDAG 2013). The SANDAG Growth Forecast estimated an increase of housing units to 17,602 by 2035, and 17,800 by 2050 (SANDAG 2013). This change would account for an average annual increase of 0.2 percent each year or 8 percent housing increase from 2010 to 2050.

According to the City's Housing Element Update, total housing saw a modest increase overall from 2000 to 2010 (City of Poway 2013). During that time, single-family units increased by 409 units, and multi-family units increased by 103 units. Overall, the total increase in housing units between 2000 and 2010 was 762. The City's vacancy rate is less than 4 percent, putting housing within the area in high demand. In the last 10 years, the City has experienced some of the highest home appreciation rates of any community in the nation. Real estate in the City appreciated 55.05 percent over the last 10 years, which is an average annual home appreciation rate of 4.48 percent, putting the City in the top 10 percent nationally for real estate appreciation (U.S. Census Bureau 2018).

4.12.2 Relevant Plans, Policies, and Ordinances

Federal

No federal regulations related to population and housing apply to the proposed project.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. According to CEQA Guidelines Section 15126.2, an EIR shall identify the significant effects of a project on the environment. Since the proposed project does not contain any affordable housing or lie within the criteria of a residential infill exception (14 CCR Sections 15192, 15195), an EIR is required to analyze the proposed project's potential effects on population and housing. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is provided in Sections 65000–66499.58 of the California Government Code, the California Planning and Zoning Law. Under state planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include seven mandatory elements described in the California Government Code. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and implementation measures.

California Building Standards Code

In 2001, California consolidated the Uniform Building, Plumbing, Electrical, and Mechanical codes into the California Building Standards Code, which is contained in Title 24 of the California Code of Regulations. The California Building Standards Code contains 11 parts: Electrical Code, Plumbing Code, Administrative Code, Mechanical Code, Energy Code, Residential Building Code, Historical Building Code, Fire Code, Existing Building Code, Green Building Standards Code, and the Reference Standards Code. These codes promote public health and safety and ensure that safe and decent housing is constructed in the state. The codes serve to protect residents from hazards and risks, and are not considered to be undue constraints to housing production. The 2019 California codes became effective in January 2020.

Senate Bill 375

Senate Bill 375 (codified in the Government Code and Public Resources Code) took effect in 2008 and provides a new planning process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the greenhouse gas (GHG) reduction goals established in Assembly Bill 32. Senate Bill 375 requires metropolitan planning organizations to incorporate a Sustainable Communities

Strategy (SCS) in their Regional Transportation Plans (RTPs) that will achieve GHG emissions reduction targets by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

Regional Housing Needs Assessment

State Housing Law mandates metropolitan planning organizations undertake a Regional Housing Needs Assessment (RHNA) as part of the periodic process of updating the local housing elements of their general plans. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods. Communities use the RHNA in land use planning, prioritizing local resource allocation, and in deciding how to address identified existing and future housing needs resulting from population, employment, and household growth. The RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promote transportation mobility, and address social equity, fair share housing needs.

The Housing Crisis Act of 2019 (Senate Bill 330)

Through the passage of the Housing Crisis Act of 2019 (Senate Bill 330), codified in the Government Code, effective January 1, 2020, the state legislature has declared a statewide housing emergency. The goal of the Housing Crisis Act is to suspend certain restrictions on development of new housing and encourage local governments to approve more housing development projects.

Local

San Diego Association of Governments

SANDAG is a public agency, composed of 18 cities and the County, which builds strategic plans guiding the San Diego region in land use, growth, economics, and the environment. SANDAG offers planning, coordination, and technical assistance to its members, administers programs at the regional level, and acts as an intermediary between the local government and the state and federal government. In terms of population and housing, SANDAG serves a crucial role in developing a big-picture vision for how the region will grow over the next 35 years. Through the development of a regional comprehensive plan, the region identifies smart growth.

Regional Transportation Plan and Sustainable Communities Strategy

Over the years, SANDAG has coordinated regional efforts to address a large number of important issues. In 2011, SANDAG approved the 2050 Regional Transportation Plan (2050 RTP/SCS) (SANDAG 2011), which marked the first time SANDAG's RTP included an SCS, consistent with the Sustainable Communities and Climate Protection Act of 2008 (also known as Senate Bill 375). The 2050 RTP/SCS provided a blueprint to improve mobility, preserve open space, and create communities, all with transportation choices to reduce GHG emissions and meet specific targets set by the California Air Resources Board (CARB) as required by the 2008 Sustainable Communities Act.[1] In 2010, CARB established targets for each region in California governed by a metropolitan planning organization. SANDAG is the metropolitan planning organization for the San Diego region.

[1] SANDAG's Environmental Impact Report under CEQA assessing the environmental consequences of its 2050 RTP/SCS is the subject of review by the California Supreme Court in *Cleveland National Forest Foundation v. San Diego Association of Governments*, Case No. S223603.

The SANDAG target, as set by CARB, is to reduce the region's per capita emissions of GHG emissions from cars and light-duty trucks by 7 percent by 2020, compared with a 2005 baseline. By 2035, the target is a 13 percent per-capita reduction. There is no target set beyond 2035. To achieve the 2020 and 2035 targets, SANDAG and other metropolitan planning organizations are required to develop an SCS as an element of its RTP. The SANDAG SCS integrates land use and transportation plans to achieve reductions in GHG emissions and meet the CARB-required targets.

SANDAG is required by law to update its regional transportation plan every four years. In October 2015, SANDAG certified a new EIR and adopted the latest update to its RTP/SCS—known as San Diego Forward: The Regional Plan (Regional Plan) (SANDAG 2015)—which integrates the elements of its prior Regional Comprehensive Plan and combines those elements with its Regional Plan.

The Regional Plan updates growth forecasts and is based on the most recent planning assumptions considering adopted general plans, and other factors, from all 18 cities of the region and the County. It shows how the regional development pattern and the transportation network, policies, and programs can work together to achieve per capita GHG emission reduction targets for cars and light-duty trucks. As stated, CARB has set a target for the San Diego region to lower GHG emissions from cars and light-duty trucks by 7 percent for 2020 and 13 percent for 2035, compared with a 2005 baseline. The Regional Plan will result in reduced GHG emissions that will exceed the state's emission reduction targets, reaching per capita reductions of 15 percent by 2020 and 21 percent by 2035 (SANDAG 2015).

The Regional Plan is based on the currently adopted land use plans, as reflected in general plans, including the County's General Plan. SANDAG's latest Regional Plan will necessarily change in response to the ongoing land use planning of the County and comprising cities. These land use inputs may change based on general plan amendments initiated by the jurisdiction or landowner applicants. The general plan amendments may result in increases in development densities by amending the Regional Category designations or zoning classifications. Accordingly, the latest forecasts in SANDAG's Regional Plan of future development in the San Diego region, including location, must be coordinated closely with each jurisdiction's ongoing land use planning because that planning is not static, as recognized by the need for updates to SANDAG's RTP/SCS every four years (SANDAG 2015).

Regional Growth Forecast

Since 1972, SANDAG has produced long-range forecasts of population, housing, and employment for the San Diego region that are used as a basic resource for numerous purposes. For example, SANDAG uses these forecasts to develop its SCS and supporting transportation network in the Regional Plan; water agencies (e.g., San Diego County Water Authority and local retail water districts) use the data for water planning purposes; and utility providers use the data for long-range planning. The County and local jurisdictions also use the forecast data for general plan and infrastructure planning purposes.

SANDAG's most recent forecast—the Regional Growth Forecast (also known as the Series 13 Forecast) (SANDAG 2013)—is the basis for the Regional Plan. These forecasts represent an assessment of the changes that SANDAG anticipates for the San Diego region based on the best available information and computer modeling. As stated, the forecasts are based on the most recent planning assumptions, considering local general plans and other factors, per Senate Bill 375 (Government Code Section 65080[b][2][B]). The SANDAG forecasts are meant to help decision makers prepare for the future and, according to SANDAG, are "not an expression for or against growth" (SANDAG 2013).

Regional Housing Needs Assessment

SANDAG is required by state law (Government Code Section 65584[a]) to complete a RHNA, in consultation with the California Department of Housing and Community Development, to determine the region's housing needs in four income categories: very low, low, moderate, and above moderate. The adopted RHNA for the San Diego region covers the eight-year period from January 1, 2013, through December 31, 2020.

The RHNA allocates housing needs in the four income categories for each of the cities and the County to use in their housing element. The cities and County are required to update their housing elements to include RHNA allocations every eight years.

Poway Comprehensive Plan: General Plan

The Poway Comprehensive Plan: General Plan (General Plan) is a statement of what the representatives of the residents want for their community in the future. Its function is to allow the citizens to consciously consider the shape their City will take for the foreseeable future and to preserve and enhance those qualities they presently find appealing. It accomplishes this by setting forth broad goals, and translating these goals into specific policies and strategies to accomplish the plan's objective. The goals of the City's General Plan as they relate to population and housing are as follows (City of Poway 1991).

Goal XI: It is the goal of the City of Poway to provide adequate, appropriate housing opportunities to meet the needs of current and future residents.

Policy A – Existing Housing: Preserve and maintain existing housing and neighborhoods to ensure that housing is both sound and safe for occupants and to meet as much as possible of the housing needs of the current and future residents of Poway through existing development.

- **Strategy 1:** The retention and maintenance of all existing mobile home parks shall be encouraged through use of a mobile home park zone and through acquisition and operation of parks by the City/Redevelopment Agency.
- **Strategy 2:** The retention of an adequate supply of rental housing shall be encouraged by maintaining ordinance provisions that restrict condominium conversions in the Residential Apartment category/RA zone and which require that new developments in this category be for rental only.
- **Strategy 3:** Promote increased awareness among property owners and residents of the importance of property maintenance to long-term housing quality.
- **Strategy 4:** Adopt ordinance requiring that all renter occupied housing be kept in a well maintained safe and sanitary condition.
- **Strategy 5:** Participate, through the County of San Diego Housing Authority, in a program of low interest rehabilitation loans to assist low and moderate income homeowners whose homes are in need of repair.
- **Strategy 6:** Maintain ordinance provisions prohibiting the occupancy of substandard dwelling units and requiring that such units be made to comply with all applicable zoning, building safety, and housing codes or when this cannot be achieved that such units be demolished.
- **Strategy 7:** Take actions necessary to ensure that assisted rental units at risk of conversion are not converted to market rate units
- **Strategy 8:** Investigate opportunities and funding sources to assist households with members who are handicapped to appropriately retrofit existing housing.

- **Strategy 9:** Support the shared housing referral and information service.
- **Strategy 10:** Continue to participate in housing programs administered by the County Department of Housing and Community Development which provide housing assistance.
- **Strategy 11:** Investigate opportunities and funding sources to provide assistance to low and moderate income households to reduce the incidence of housing overpayment.

Policy B – New Housing: Provide opportunities for high quality new housing construction as necessary to meet the needs of current and future Poway residents including those with special needs.

- **Strategy 1:** Ensure that housing constructed for very-low, low, and moderate income households be high quality in terms of design and construction and be compatible in design with surrounding development.
- **Strategy 2:** Establish land use and zoning categories in the General Plan and Zoning Ordinance that allow a diversity of housing types to be built to provide for the actual needs of residents while minimizing conflicts with existing development and unnecessary erosion of residents' quality of life and investment in their homes.
- **Strategy 3:** In-fill development shall be encouraged in order to make efficient use of existing public infrastructure.
- **Strategy 4:** Encourage the use of innovative site development techniques and the use of alternative building materials that both meet the intent of City policies and ordinances and reduce the cost of site preparation or construction.
- **Strategy 5:** Regularly review development fee schedules to ensure that user charges and fees are consistent with costs incurred by the City. Pursue a reduction of fees to affordable housing projects.
- **Strategy 6:** Determine the feasibility of using public subsidies to assist in the development of affordable housing.
- **Strategy 7:** Require coaches and lots within newly created mobile home parks to be held in common ownership except in cases where the coaches and or lots are owned by a public agency or nonprofit housing entity.
- **Strategy 8:** Encourage the development of affordable housing for the elderly in proximity to public transportation and community services.
- **Strategy 9:** Encourage the development of residential units which are accessible to handicapped persons or are adaptable for conversion to use by handicapped persons.
- **Strategy 10:** Investigate programs to assist first-time buyers.
- **Strategy 11:** All new businesses which employ more than five persons in agricultural or landscaping jobs shall provide suitable housing for them or pay an in lieu fee to allow such housing to be provided.
- **Strategy 12:** Require that housing constructed expressly for very low, low, and moderate income households not be concentrated in any single area.
- **Strategy 13:** Encourage the development of child care facilities coincident with new housing development and consider the use of incentives such as density bonus reduced development fees and or financial assistance.
- **Strategy 14:** Require deed restrictions for new units provided under this policy in order to ensure their permanent affordability.

Policy C – Fair Housing Practices: Assure that all housing whether market or assisted is sold or rented in conformance with open housing policies free of discriminatory practices.

- **Strategy 1:** Make every reasonable effort to ensure that the provisions of all applicable Federal and State laws and regulations concerning nondiscrimination are enforced.
- **Strategy 2:** Disseminate information on housing discrimination complaints to appropriate agencies.

City of Poway's Housing Element Update

The City's Housing Element Update is an eight-year plan for the 2013–2020 housing cycle for jurisdictions in the San Diego region (City of Poway 2013). The Housing Element Update serves as an integrated part of the General Plan, but is updated more frequently, as required by state law, to ensure its relevancy and accuracy. The Housing Element identifies strategies and programs that focus on the following:

- Matching housing supply with need
- Maximizing housing choices throughout the community
- Assisting in the provision of affordable housing
- Removing governmental and other constraints to housing investment
- Promoting fair and equal housing opportunities.

4.12.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to population and housing are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to population and housing would occur if the project would:

1. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

4.12.4 Impacts Analysis

Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

As shown in Table 4.12-1, the proposed project would be composed of five interrelated housing types and introduce a total of 160 residential units to the area, which would increase the population within the project site and in the area. The project site is currently developed, and consists of an abandoned golf course. Implementation of the proposed project would convert the former golf course into a residential, agricultural, and recreational neighborhood.

Table 4.12-1. Dwelling Units by Type

Use/Land Use	Approximate Net Area (in acres)	Percent of Planning Area (percent)	Maximum Number of Dwelling Units	Residential Density (DU/AC)
R-Twin (R-T)	2.05	1.7	22	10.7
R-Cottage (R-C)	16.71	14.3	90	5.4
R-Garden (R-G)	2.78	2.4	13	4.7
R-Homesteads (R-H)	8.00	6.8	20	2.5
R-Meadows (R-M)	4.31	3.7	15	3.5
Total Residential	**33.85**	**28.9**	**160**	**4.7**

Source: The Farm in Poway LLC 2020.
Note: DU/AC = dwellings units per acre.

According to the City's Zoning Ordinance, found in Chapter 17 of the City's Municipal Code (City of Poway 2019), the project site is currently zoned as Open Space – Recreational (OS-R). The proposed project is anticipating to rezone the site to 29 percent residential uses and 60 percent open space zoning, with the remaining 11 percent of the project site planned as private streets, sidewalks, and infrastructure.

The proposed zoning would induce population growth with the introduction of 160 residential units; however according to SANDAG's Series 13 Regional Growth Forecast, the amount of anticipated population growth in the City would be 10 percent by the year 2050, which would be approximately 0.26 percent growth per year (SANDAG 2013). This forecasting model has accounted for growth of approximately 4,600 people by the year 2035, and 5,000 people by the year 2050. Anticipated housing growth in the City, as represented by the Series 13 Forecasting Model, shows approximately 8 percent by the year 2050, which would be approximately 0.21 percent housing growth per year, or 1,294 additional housing units by the year 2050, with approximately 794 being single-family units (SANDAG 2013).

According to the U.S. Census Bureau, there are approximately 3.12 persons per household in the City. Following those averages, the proposed project would add approximately 500 people to the City's jurisdiction with the development of 160 residences. Over a construction period of four years, this estimate would average approximately 125 additional persons per year, which is substantially less than the anticipated growth rate.

In accordance with defined future housing needs, the City must balance land use activities to accommodate future housing development and meet RHNA's state housing law compliance for different affordability levels. To accommodate the City's projected growth in the area, appropriate housing should be maintained.

The proposed project would be infill development, constructed on previously developed land surrounded by other residential uses, and would provide appropriate housing stock to accommodate future growth within the City. Although the proposed project is likely to induce some growth as a result of construction, including utilities and associated utility lines, the growth is not considered to be substantial and it would not significantly increase existing population numbers within the City. Moreover, in consideration of other residential land uses and housing development occurring within the City, the anticipated 500 new residents are within the forecasted population growth of the Housing Element planning cycle. The draft Regional Housing Needs Allocation for the 2021 to 2029 Housing Element planning cycle allocates 1,319 housing units to the City of Poway.

Potential population growth is further analyzed in this EIR under Growth-Inducing Impacts (Chapter 5, Other CEQA Considerations), which concludes that the proposed project would not remove an obstacle to substantial population growth in the area, or require the construction of a substantial amount of new community service facilities or

encourage other activities or growth that could significantly affect the environment. Therefore, impacts associated with inducing substantial population growth would be **less than significant**.

Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed project is an infill development located on a former golf course, which does not contain any housing or residential units. Implementation of the proposed project would convert the former StoneRidge Country Club golf course to homes, infrastructure, and associated amenities, and would not displace any existing housing or people, or necessitate construction of replacement housing elsewhere. The proposed project would not displace housing or people; therefore, **no impact** would occur.

4.12.5 Cumulative Impacts

Figure 3-11, Cumulative Projects, and Table 3-2, Cumulative Projects, identify the projects generally considered for the cumulative analysis.

The proposed project would provide housing options within the City, and thereby contribute to an increase in local residents. However, because housing is in short supply in the City (less than 4 percent vacancy rate), and because the proposed project would result in a relatively small percentage (10 percent) of the anticipated population increase by 2050, the contribution to cumulative population growth as a result of the proposed project would not result in a cumulatively considerable impact. Rather, the proposed project would assist the City in accommodating its planned growth consistent with the City's General Plan.

Additional housing development projects within the City of Poway include Crest Road Estates (six single-family lots), Aria Estates (seven single-family lots), Liguori Ranch (29 single-family lots), Persepolis Estates (five single-family lots), Outpost (53 apartments), Meadowbrook (12 single-family lots), Merriman Subdivision (five residential lots), Poway Commons (98 attached units, 44 senior units), Villa de Vida (six single-family lots), and Vista Maderas Subdivision (six single-family lots). These cumulative projects would also be accommodate the planned growth that is included in the City's General Plan. Additionally, these residential developments would be scattered in both locations and construction timeline. These housing developments would help facilitate the anticipated growth for the City.

Furthermore, no existing housing and no people would be displaced as a result of the proposed project; therefore, the proposed project would not contribute to a cumulatively considerable impact related to displacement of housing or people.

4.12.6 Mitigation Measures

The proposed project would have a less-than-significant impact related to population and housing, therefore no mitigation would be required.

4.12.7 Level of Significance After Mitigation

The effects of population growth within the proposed project area would not be substantial due to the forecasted expectation of increased population within the City, as represented from SANDAG's Series 13 Regional Growth Forecast Model. Also, the proposed project aligns with the needs for housing due to the vacancy rate of the City. In addition, the proposed project does not involve any displacement of people or housing, since the project site is an abandoned golf course, and no mitigation would be required.

4.13 Public Services

This section describes the existing public services conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. Public services include fire protection, police protection, schools, and libraries. Park and recreational services are addressed in Section 4.14, Recreation.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to public services focused on the following topics:

- Overcrowding of schools
- Decreased response times of police, fire, and medical responders.

These comments were considered during the preparation of this Environmental Impact Report (EIR). The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.13.1 Existing Conditions

Fire Protection

The City of Poway Fire Department (PFD) is an all-hazard, all-risk response agency that services the City of Poway (City). PFD has four divisions: (1) Logistics/Support Division, (2) Operations/Emergency Medical Services (EMS) Division, (3) Training/Safety Division, and (4) Fire Prevention Division. The San Diego Fire-Rescue Department Emergency Command and Data Center are contracted by PFD for dispatching services (City of Poway n.d.a). The majority of services requested from the PFD are medical aids, traffic accidents, and wildland fires (during the summer months). As of June 2019, the PFD has five chief officers, 48 sworn fire suppression personnel, three fire prevention staff, one senior administrative assistant, and one disaster preparedness coordinator that provides services to a population of approximately 49,704 in an area covering 39.3 square miles (U.S. Census Bureau 2019). The PFD has 17 personnel that handles emergency and non-emergency calls.

The City has three fire stations. Table 4.13-1 details the fire station names, addresses, and equipment. The PFD employs three paramedic engines, one paramedic ladder truck, two paramedic ambulances, and one incident commander. Personnel assignments are as follows: three personnel to each fire engine, three personnel to a truck, and two personnel to each ambulance. Personnel cross-staffed from engine companies manage and handle Incident Command System Type III wildland brush engines and California Governor's Office of Emergency Services Type I engines upon request (City of Poway n.d.b).

Table 4.13-1. Fire Stations in the City of Poway

Fire Station Name	Year Established	Address	Equipment	Approximate Distance from Project Site
Fire Station 1/ Administrative Offices	1980	13050 Community Road, Poway, California 92064	Frontline Apparatus: Engine 3711, Medic 3791, Brush 3761, Battalion 3707 Reserve Apparatus: Engine 3721, Brush 3769, Medic 3798, Battalion 3704, Water Tender 3751	6.6 miles

Table 4.13-1. Fire Stations in the City of Poway

Fire Station Name	Year Established	Address	Equipment	Approximate Distance from Project Site
Fire Station 2	1980	16912 Westling Court, Poway, California 92064	Frontline Apparatus: Engine 3712, Brush 3762, OES 308	0.8 miles
Fire Station 3	2001	14322 Pomerado Road, Poway, California 92064	Frontline Apparatus: Engine 3713, Truck 3773, Medic 3793 Reserve Apparatus: Engine 3722, Medic 3799, Utility 3783	5 miles

Source: City of Poway n.d.c.

PFD's Automatic Aid Agreement with the City of San Diego requires that aid be dispatched immediately by the closest unit upon request. The City's Mutual Aid Agreement with the County of San Diego (County) states that the City shall assist with any other cities or districts in firefighting efforts upon request. The PFD is located within the Metropolitan Zone area of the San Diego County Operation Area (EOP 2018a). The PFD can request services from partner fire departments within the Metropolitan Zone, as designated by the 2018 Emergency Operations Plan (EOP 2018a). Other fire departments in the Metropolitan Zone include the City of San Diego Fire-Rescue Department, Miramar Fire Department, Federal Fire Department, City of Coronado Fire Department, City of Imperial Beach Fire Department, City of National City Fire Department, and City of Chula Vista Fire Department.

The PFD is classified as a Class 1/1X department by the Insurance Services Organization's Public Protection Classification program, which measures and evaluates the effectiveness of fire-mitigation services in communities throughout the country. For each fire protection area, the Insurance Services Organization assigns a Public Protection Classification from Class 1 (exemplary fire protection) to Class 10 (fire-suppression program does not meet minimum criteria). The "1X" classification indicates that the area is located far from a fire hydrant or outside a water service area (City of Poway n.d.b).

PFD's response time is the elapsed time from the fire department's receipt of the first alarm to when the first fire unit arrives at the scene, as defined in the City's Fire Code (City of Poway 2016). Furthermore, PFD's travel time is defined as the estimated time it would take for a responding agency to travel from the fire station to the furthest structure in a development project, determined by measuring the safest, most direct, appropriate, and reliable route with consideration given to safe operation speeds for heavy fire apparatus (City of Poway 2016). PFD does not have an established response time goal; however, the PFD's travel time goal is to arrive on scene within six minutes 90 percent of the time (Canavan, pers. comm. 2019a).

Logistics/Support Division

The Logistics/Support Division is responsible for the maintenance and repair of fire apparatus, vehicle procurement, maintenance and repair of facilities, and administrative duties (City of Poway n.d.d). This division oversees the yearly fire pump performance testing as required by the National Fire Protection Association (NFPA) 1911: Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus. Due to the variety of equipment and technology utilized by the PFD, the Logistics/Support Division coordinates with the City's IT Department, the California Governor's Office of Emergency Services, the California Department of Forestry and Fire Protection, County fire agencies, and outside vendors.

Operations/EMS Division

The Operations Division (also known as the Fire Suppression Division) offers all-risk response services to the City 24 hours per day, seven days a week. "All-risk" situations encompasses events such as fire suppression, rescue, emergency medical services, hazardous materials mitigation, special assistance, and public service. The EMS Division provides the City with advanced-level medical and trauma care following policies set forth by the California and San Diego County Emergency Medical Services Authorities (City of Poway n.d.c).

Training/Safety Division

The Training/Safety Division administers training and professional development activities through classroom education sessions, manipulative skills practice, team response drills, and advertisement of outside educational/training opportunities (City of Poway n.d.e). These training opportunities are administered through programs such as the Annual Training Plan, Apparatus Operator Guidebook and Certification Program, Training Manual, and Firefighter/Paramedic Probation Manual. Fire Stations 1 and 3 have classrooms where trainings can be held. Each PFD fire station has station libraries, where personnel have access to job-specific instruction manuals, department policy and procedure documents, response reference guides, and information on management techniques (City of Poway n.d.f). The PFD Training Tower, a facility that simulates real-life fire or risk events, is located on 12335 Crosthwaite Circle, Poway, California 92064.

Fire Prevention Division

The Fire Prevention Division is responsible for the application of statutes, laws, and regulations to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations (City of Poway n.d.g). Statutes, laws, and regulations are sourced from the International Fire Code, the California Fire Code, and the City's Fire Code. The Fire Prevention Division performs fire and life-safety inspections for businesses; multi-family residential occupancies; and educational, institutional, and permitted facilities.

Police Protection

The City has been contracting its police protection services from the San Diego County Sheriff's Office since 1980 (San Diego County Sheriff n.d.). The San Diego County Sheriff's Poway Station is located on 13100 Bowron Road, Poway, California 92064—approximately 6.7 miles from the project site. The Poway Station is staffed by 45 sworn personnel, six civilians, 13 reserve deputies, and 55 senior volunteer patrol personnel who provides services to a population of approximately 50,000 in an area covering 40 square miles (San Diego County Sheriff n.d.; U.S. Census Bureau 2019). The Poway Station services the entirety of the City, as well as unincorporated areas of Santa Fe Valley and the County. Patrol deputies respond to calls 24 hours a day (San Diego County Sheriff n.d.). According to the San Diego County Sheriff's Law Enforcement Activity Report, 18,435 calls for service were made in the Sheriff's jurisdiction in April 2019; 917 of those were made from the City (San Diego County Sheriff 2019). The San Diego County Sheriff's Department employs 5,430 overall, 2,564 of which are deputies, 1,723 are professional staff, and 1,143 are temporary workers (San Diego County Sheriff 2018). The Poway Station does not have response time goals specific to geographical neighborhoods or tracts (Collier, pers. comm. 2019). Department goals for staffing are calculated based on factors like service calls, geographical size, and crime statistics; currently, the overall department average is approximately one to 1,000 residents (Collier, pers. comm. 2019).

The Poway Station, as a station under the San Diego County Sherriff's Department, is a participant in the master mutual aid agreement (EOP 2018b). Under the agreement, the San Diego County Sherriff can request law enforcement mutual aid from departments within the same Operational Area. Likewise, services from the Poway Station will be dispatched to areas out of the Poway Station's jurisdiction upon request.

Since 2006, the City has administered the Community Emergency Response Team (CERT) Program, which educates people about disaster preparedness for hazards that may impact their area and community (City of Poway n.d.h). Once a year, the City offers a CERT academy that provides training in basic fire safety, search and rescue, first aid treatment, terrorism, emergency preparedness, and disaster psychology. The program is taught by City firefighters and follows curriculum developed by the Federal Emergency Management Agency. Graduates of the program or an equivalent CERT course may apply for the City's CERT membership. CERT members may be called on by the City to perform a variety of roles, such as staffing care and shelter facilities or conducting damage assessment. CERT participants must be over the age of 18 (City of Poway n.d.h).

Schools

The City is serviced by the Poway Unified School District (PUSD). There are 18 schools in the City of Poway, including private schools: seven elementary schools, two intermediate/middle schools, one high school, one adult school, and eight private schools (see Table 4.13-2, Schools in the City of Poway). The closest school to the project site is Painted Rock Elementary School, located approximately 0.15 miles south of the project site. Chaparral Elementary School is also located approximately 0.5 miles west of the project site. The schools that may be considered to accommodate students from the proposed project are Chaparral Elementary, Twin Peaks Middle School, and Poway High School (Little, pers. comm. 2019a).

Poway Unified School District

PUSD serves 44,878 students in an area covering 100 square miles, 1,077 of which are preschool students, 36,435 of which are kindergarten to 12th grade students, and 7,366 of which are adult education students (PUSD 2018a). PUSD employs 4,221 people, 1,941 of which are certificated employees and 2,280 of which are classified employees (PUSD 2018a). PUSD serves the City, as well as the communities of Rancho Bernardo, Rancho Penasquitos, Carmel Mountain Ranch, and Sabre Springs in the City of San Diego. PUSD operates 25 elementary schools (kindergarten through fifth grade), one elementary and middle school combination (transitional kindergarten to eighth grade), six middle schools (sixth to eighth grade), one continuation high school, six comprehensive high schools (ninth to 12th grade), and one adult school (PUSD 2018a). PUSD elementary schools include Adobe Bluffs, Canyon View, Chaparral, Creekside, Deer Canyon, Del Sur, Garden Road, Highland Ranch, Los Penasquitos, Midland, Monterey Ridge, Morning Creek, Painted Rock, Park Village, Pomerado, Rolling Hills, Shoal Creek, Stone Ranch, Sundance, Sunset Hills, Tierra Bonita, Turtleback, Valley, Westwood, and Willow Grove. The PUSD transitional kindergarten to eighth grade combination school is Design39Campus. PUSD middle schools are Bernardo Heights, Black Mountain, Meadowbrook, Mesa Verde, Oak Valley, and Twin Peaks. PUSD high schools are Abraxas, Del Norte High, Mt. Carmel, Poway High, Rancho Bernardo, and Westview. The PUSD adult education school is Poway Adult School. Twelve of these schools are located in the City (see Table 4.13-2). As of the 2017–2018 school year, PUSD elementary schools have an excess capacity of 770 students, PUSD middle schools were over capacity by 387 students, and PUSD high schools have an excess capacity of 363 students (PUSD 2018b).

Students residing within the proposed project would go to Chaparral Elementary School, Twin Peaks Middle School, and Poway High School (Little, pers. comm. 2019a). As of the 2018–2019 school year, Chaparral Elementary School has 838 students enrolled (PUSD 2019a), Twin Peaks Middle School has 1229 students enrolled (PUSD 2019b), and Poway High School has 2254 students enrolled (PUSD 2019c).

Private Schools

In addition to the public schools operated by the PUSD, the City has seven private schools, including New Bridge, Mt. Michael's, Country Montessori School of Poway, Legacy Montessori, the Koonings Center, Discovery Isle Child Development Center, and San Diego Classical Academy (see Table 4.13-2). There are no charter schools in the City.

Table 4.13-2. Schools in the City of Poway

Name	Address	School Type	Grades Offered	Approximate Distance from Project Site
Chaparral Elementary*	17250 Tannin Drive Poway, California 92064	Elementary School (Public)	TK–5	0.5 miles
Valley Elementary	13000 Bowron Road Poway, California 92064	Elementary School (Public)	K–5	6.6 miles
Painted Rock Elementary	16711 Martincoit Road Poway, California 92064	Elementary School (Public)	K–5	0.15 miles
Tierra Bonita Elementary	14678 Tierra Bonita Road Poway, California 92064	Elementary School (Public)	K–5	3.7 miles
Midland Elementary	13910 Midland Road Poway, California 92064	Elementary School (Public)	K–5	5.5 miles
Pomerado Elementary	12321 9th Street Poway, California 92064	Elementary School (Public)	K–5	5.6 miles
Garden Road Elementary	14614 Garden Road Poway, California 92064	Elementary School (Public)	K–5	6.2 miles
Twin Peaks Middle*	14640 Tierra Bonita Road Poway, California 92064	Intermediate/ Middle Schools (Public)	6–8	3.9 miles
Meadowbrook Middle	12320 Meadowbrook Lane Poway, California 92064	Intermediate/ Middle Schools (Public)	6–8	5.3 miles
Poway High*	15500 Espola Road Poway, California 92064	High School (Public)	9–12	2.3 miles
Abraxas Continuation High	12450 Glenoak Road Poway, California 92064	Continuation High School	9–12	4.6 miles
Poway Adult School	13626 Twin Peaks Road Poway, California 92064	Adult School	—	4.4 miles
New Bridge School	12285 Oak Knoll Road Poway, California 92064	Private	K–8	6.3 miles
St. Michael's School	15542 Pomerado Road Poway, California 92064	Private	K–8	3.1 miles
Country Montessori School of Poway	12642 Monte Vista Road Poway, California 92064	Private	K–5	3.0 miles
Legacy Montessori School	12310 9th Street Poway, California 92064	Private	K–6	5.6 miles

Table 4.13-2. Schools in the City of Poway

Name	Address	School Type	Grades Offered	Approximate Distance from Project Site
The Koonings Center	12271 Oak Knoll Road Poway, California 92064	Private	K–8	6.3 miles
Discovery Isle Child Development Center	14521 Ted Williams Parkway Poway, California 92064	Private	K–5	4.3 miles
San Diego Classical Academy	13059 Camino del Valle Poway, California 92064	Private	1–9	1.0 mile

Source: SanGIS 2019.
Notes: TK = transitional kindergarten; K = kindergarten.
* Considered to accommodate students from the proposed project

Library

The Poway Community Library has been located on 13137 Poway Road since 1975 (City of Poway 1991), and is operated by the County of San Diego Library System. The County of San Diego Library System currently operates 33 library branches, two bookmobiles, and two 24/7 Library To Go kiosks (SDCL 2015). As of 2015, over 11.1 million books, CDs, DVDs, and other materials have been circulated and over 5.6 million library visits were recorded (SDCL 2015). Amenities at the Poway Community Library include library services, a MakerBot 3D Printer, and a community meeting room for up to 64 persons (SDCL n.d.a.). There are no library development impact fees in the City (City of Poway 2008).

4.13.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal regulations that would be applicable to the proposed project.

State

Mello-Roos Community District Act of 1982

The Mello-Roos Community District Act of 1982 enables counties, cities, special districts, school districts, or joint powers authorities to create community facilities districts to finance public improvements and services. A community facilities district would be created by describing the boundaries of the territory and would include the entirety of any parcel subject to taxation by the proposed district. All public facilities and services (i.e., schools) within said boundary would be financed by the community facilities district through a special tax sufficient to pay for all facilities and services.

Assembly Bill 16

In 2002, Assembly Bill 16 created the Critically Overcrowded School Facilities program, which supplements the new construction provisions within the School Facilities Program. The School Facilities Program provides state funding assistance for two major types of facility construction projects—new construction and modernization. The Critically Overcrowded School Facilities program allows school districts with critically overcrowded school facilities, as determined by the California Department of Education, to apply for new construction programs in advance of meeting all School Facilities Program new construction program requirements. Districts may apply if they have

met School Facilities Program new construction eligibility requirements and if their school sites are included on a California Department of Education list of source schools.

Senate Bill 50/Government Code Section 65995

Senate Bill (SB) 50 was signed into law in 1998, and it imposes limitation on the power of cities and counties to require mitigation of school facilities' impacts as a condition of approving new development. It also authorizes school districts to levy statutory developer fees at a higher rate for residential development than previously allowed. SB 50 amended Government Code Section 65995(a) to provide that only those fees expressly authorized by law (Education Code Section 17620 or Government Code Section 65970 et seq.) may be levied or imposed in connection with or made conditions of any legislative or adjudicative act by a local agency involving planning, use, or development of real property.

Other relevant sections of the Government Code include the following:

- Section 65995(h), which declares that the payment of the development fees authorized by Education Code Section 17620 is "full and complete mitigation of the impacts of any legislative or adjudicative act… on the provision of adequate school facilities."
- Section 65995(i), which prohibits an agency from denying or refusing to approve a legislative or adjudicative act involving development "on the basis of a person's refusal to provide school facilities mitigation that exceeds the amounts authorized [by SB 50]."

California Building Code, Chapter 7A – Materials and Construction Methods for Exterior Wildfire Exposure

A relatively small portion of the proposed project on the northeastern corner of the project site is located within a Very High Fire Hazard Severity Zone (VHFHSZ). The purpose of the California Building Code, Chapter 7A, is to establish minimum standards for the protection of life and property for buildings located within any Fire Hazard Severity Zone. Chapter 7A applies to building materials, systems, and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area. All new buildings located within the following area is required to comply with Chapter 7A:

1. All unincorporated lands designated by the State Board of Forestry and Fire Protection as State Responsibility Area including:
    a. Moderate Fire Hazard Severity Zones
    b. High Fire Hazard Severity Zones
    c. Very High Fire Hazard Severity Zones
2. Land designated as Very High Fire Hazard Severity Zone by cities and other local agencies.
3. Land designated as Wildlife Interface Fire Area by cities and other local agencies.

California Code of Regulations Title 24, Part 2 and Part 9

Part 2 of Title 24 of the California Code of Regulations refers to the California Building Code, which contains complete regulations and general construction building standards of state adopting agencies, including administrative, fire and life safety, and field inspection provisions. Part 2 was updated in 2016 to reflect changes in the base document from the International Building Code. Part 9 refers to the California Fire Code, which

contains fire-safety-related building standards referenced in other parts of Title 24. In 2019, the California Code of Regulations was further updated and local amendments became effective January 2020.

California Department of Education

The California Department of Education administers California's public education system at the state level. By statute, the state Board of Education is responsible for governing and determining policy for of the California Department of Education. The Board of Education adopts rules and regulations for the government of the state's public schools; adopts curriculum frameworks in core subject-matter areas; approves academic standards for content and student performance in the core curriculum areas; and adopts tests for the Standardized Testing and Reporting program and the California High School Exit Examination.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

The purpose of reviewing and analyzing impacts to public services under CEQA is to determine if increased service demands created by a proposed project would warrant the construction or relocation of a public service, such as schools or fire services. If a proposed project would warrant the construction or relocation of a public service, this would cause a physical environmental impact. For example, fire protection services are required to maintain a particular fire fighter to resident ratio. A large housing development project would significantly increase the population of an area, and would potentially warrant the fire protection service department to hire new fire fighters and to potentially construct a new fire station to employ the fire fighters; this would pose a potential environmental impact.

California Fire Plan

The California Fire Plan is the state's road map for reducing the risk of wildfire. The plan is a cooperative effort between the state Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection. By placing the emphasis on what needs to be done long before a fire starts, the California Fire Plan looks to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The current plan was finalized in early 2010.

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which includes regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The State Fire Marshal enforces these regulations and building standards in all state-owned buildings, state-occupied buildings, and state institutions throughout California.

California Public Schools Accountability Act of 1999

This act authorized the creation of an educational accountability system for California public schools. Its primary goal is to help schools improve and to measure the academic achievement of all students. The cornerstone of this act is the Academic Performance Index, which measures the academic performance and growth of schools on a variety of academic measures.

Senate Bill 244

SB 244, adopted on October 10, 2011, requires cities to review and update the elements of their general plans to include data and analysis, goals, and implementation measures regarding specified disadvantaged communities, including unincorporated islands, fringe, or legacy communities. For disadvantaged unincorporated communities within or adjacent to a city's Sphere of Influence, SB 244 requires the city to prepare a determination regarding the existing and planned adequacy of public facilities and public services, including wastewater, potable water, stormwater, police, and fire. SB 244 prohibits the Local Agency Formation Commission from approving an annexation to a city of any territory greater than 10 acres, where there exists a disadvantaged unincorporated community that is contiguous to the area of proposed annexation, unless an application to annex the disadvantaged unincorporated community to the city has been filed with the Local Agency Formation Commission and evaluated the present and probably sewers, water, stormwater, and fire protection needs or deficiencies.

Government Code – Section 66001

The Government Code Section 66001 allows a local agency to establish, increase, or impose a fee as a condition of approval of a development project. This includes the following:

1) Identify the purpose of the fee.
2) Identify the use to which the fee is to be put. If the use is financing public facilities, the facilities shall be identified. The identification may, but not need, be made by reference to a capital improvement plan as specified in Section 65403 or 66002, may be made in applicable general or specific plan requirements, or may be made in order to provide public documents that identify the public facilities for which the fee is charged.
3) Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed.
4) Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.
5) In any action imposing a fee as a condition of approval of a development project by a local agency, the local agency shall determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.
6) Upon receipt of a fee subject to this section, the local agency shall deposit, invest, account for, and expend the fees pursuant to Section 66006.
7) For the fifth fiscal year following the first deposit into the account or fund, and every five years thereafter, the local agency shall make all of the following findings with respect to that portion of the account or fund remaining unexpended, whether committed or uncommitted:
8) Identify the purpose to which the fee is to be put.
9) Demonstrate a reasonable relationship between the fee and the purpose for which it is charged.

10) Identify all sources and amounts of funding anticipated to complete financing in incomplete improvements identified in paragraph (2) of subdivision (a).
11) Designate the approximate dates on which the funding referred to in subparagraph (C) is expected to be deposited into the appropriate account or fund.
12) When findings are required by this subdivision, they shall be made in connection with the public information required by subdivision (b) of Section 66006. The findings required by this subdivision need only be made for moneys in possession of the local agency, and need not be made with respect to letters of credit, bonds, or other instruments taken to secure payment of the fee at a future date. If the findings are not made as required by this subdivision, the local agency shall refund the moneys in the account or fund as provided in subdivision (e).
13) Except as provided in subdivision (f), when sufficient funds have been collected, as determined pursuant to subparagraph (F) of paragraph (1) of subdivision (b) of Section 66006, to complete financing on incomplete public improvements identified in paragraph (2) of subdivision (a), and the public improvements remain incomplete, the local agency shall identify, within 180 days of the determination that sufficient funds have been collected, an approximate date by which the construction of the public improvement will be commenced, or shall refund to the then current record owner or owners of the lots or units, as identified on the last equalized assessment roll, of the development project or projects on a prorated basis, the unexpended portion of the fee, and any interest accrued thereon. By means consistent with the intent of this section, a local agency may refund the unexpended revenues by direct payment, by providing a temporary suspension of fees, or by any other reasonable means. The determination by the governing body of the local agency of the means by which those revenues are to be refunded is a legislative act.
14) If the administrative costs of refunding unexpended revenues pursuant to subdivision (e) exceed the amount to be refunded, the local agency, after a public hearing, notice of which has been published pursuant to Section 6061 and posted in three prominent places within the area of the development project, may determine that the revenues shall be allocated for some other purpose for which fees are collected subject to this chapter and which serves the project on which the fee was originally imposed.
15) A fee shall not include the costs attributable to existing deficiencies in public facilities, but may include the costs attributable to the increased demand for public facilities reasonably related to the development project in order to (1) refurbish existing facilities to maintain the existing level of service or (2) achieve an adopted level of service that is consistent with the general plan.

Government Code – Section 65995

Section 65995 of the Government Code discusses the topic of fee payment, charges, dedications, or other requirements against a development project for school facilities. In the case of residential construction, including the location, installation, or occupancy of manufactured homes and mobile homes, the amount of any Level I fees, charges, dedications, or other requirements shall not exceed $3.79 per square foot of assessable space over 500 square feet. Commercial or industrial construction shall not exceed $0.61 per square foot of chargeable covered and enclosed space.

Education Code – Chapter 6, Section 17620

Section 17620 of the Education Code allows the governing board of any school district to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction of reconstruction of school facilities, subject to any limitations set forth in Chapter 4.9

(commencing with Section 65995) of Division 1 of the 7 of the Government Code. This fee, charge, dedication, or other requirement may be applied to construction as well under a set of provisions.

Local

City of Poway Municipal Code – Chapter 15.24 Fire Code

The City's Fire Code (City of Poway 2016) is based on the 2016 California Fire Code with deleted, modified, or amended portions which are detailed here. The developments within the VHFHSZ of the project site are required to follow the standards listed. These include, but are not limited to, the following:

1. An effective fuel modification zone shall be maintained around all structures be removing, clearing or modifying combustible vegetation and other flammable materials from areas within 100 feet from each building or structure, or as determined by the fire code official.
2. Horizontal clearance from tree crowns to structures shall be pruned to maintain a minimum of 10 feet for fire resistive trees and 30 feet for non-fire resistive trees. Tree crowns within the defensible space shall be pruned to remove limbs located less than six feet above the ground surface adjacent to the trees. Portions of tree crowns that extend within 10 of the outlet of a chimney shall be pruned to maintain a minimum horizontal clearance of 10 feet. No more than three trees per cluster; minimum distance between clusters or individual non-clustered trees is 20 feet.
3. All orchards, groves, and vineyards shall be kept in a healthy state and maintained as described below. A 10 foot firebreak shall be cleared between the perimeter of the orchard trees or row of grape vines and native vegetation or ornamental landscaping. Orchards shall be kept clean of dead and/or downed trees. Orchards and vineyards shall be free of combustible debris including, but not limited to, dead branches and dead foliage. All dead grasses between rows of trees or vines shall be removed.
4. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of building will be constructed. A water analysis shall be performed to establish the adequacy of the existing water mains and all necessary system design to serve the project. Costs of water analysis shall be the responsibility of the applicant. The required fire flow of the VHFHSZ shall be a minimum of 1,500GPM; all areas not located in the VHFHSZ shall meet the requirements outlined in Appendix B of the 2016 California Fire Code.
5. All flammable vegetation within approved fuel modification zones shall be removed prior to the arrival of combustible material on the site and shall be maintained during the duration of the project until all elements of approved fuel modification zones are installed and approved.
6. Buildings shall be setback a minimum of 30 feet from property lines and biological open space easements unless the Poway Municipal Code requires a greater minimum. When the property line abuts a roadway the setback shall be measured from the farthest roadway edge.
7. Ignition Resistant Class I construction as described in the California Building Code Chapter 7A, is required for all facilities, buildings, and structures.
8. All facilities and buildings located in the VHFHSZ are required to comply as follows:
    a. Single story structures shall be setback a minimum of 15 feet horizontally from top of slope to the farthest projection from a roof.
    b. A single-story structure shall be less than 12-feet above grade.
    c. A two-story structure shall be setback a minimum of 30-feet horizontally from top of slope to the farthest projection from a roof.

d. Structures greater than two stories may require a greater setback when the slope is greater than 2:1.
e. Structure setbacks shall be shown on the site plan.
f. Show scaled cross section profiles denoting the top of the slope, building/roof projections, and the setback distance at multiple locations on the plan submittal.

9. All residential facilities and buildings located in the VHFHSZ are required to comply with Section 4 of the City of Poway Landscape and Irrigation Design Manual and Poway Municipal Code 15.24 as it relates to fuel management and defensible space. Thirty feet of fuel management meeting Zone A is required measured outward from the furthest point of all facilities and buildings. A vegetation fuel modification zone with a minimum width of 10 feet shall be maintained on both sides of all fire apparatus access roadways and driveways not already located in a fuel management area.

Poway Comprehensive Plan: General Plan – Public Facilities Element

The Public Facilities Element of the Poway Comprehensive Plan: General Plan (General Plan) include the following policies regarding public services (City of Poway 1991):

Goal II, Policy D – Public Service Constraints: The land use pattern and population should be consistent with the capability of existing and planned public services and facilities.

- **Strategy 1:** Development should not overburden the ability of local school districts to provide a consistent level of quality educational services and facilities to community residents. The City supports changes to state law which would remove restrictions on local jurisdictions' ability to deny development based on inadequate schools.
- **Strategy 2:** Land uses and development review applications that are inconsistent with that capability of any public service agency to provide cost-effective service shall not be approved.
- **Strategy 3:** The number and location of dwelling units in the City shall be limited to that which can be adequately served by public services and facilities.

Goal III, Policy D – Cultural and Educational Facilities: The City shall seek to provide adequate facilities to address the cultural and educational needs of the community.

- **Strategy 1:** Construct a modern, comfortable, well-planned community library to achieve and maintain a level of library services appropriate to the cultural, educational and recreational needs of the community. The ultimate goal is to provide a facility that is based on a sliding scale of 0.5 to 0.8 square feet of library space and 3 to 5 items of library materials per resident.
- **Strategy 2:** Maintain a Citizens' Library Committee to advise on building, planning, evaluating and administrating the library.
- **Strategy 3:** Encourage coordination and cooperation with other area library agencies to maximize the breadth and quality of library services available in our community.
- **Strategy 4:** Develop a plan to establish, maintain and fund a level of library staff and materials commensurate with the library service plan.
- **Strategy 5:** Establish a use policy which will ensure a balanced program of professional, school, and community performing arts activities as the priority use for the Poway Center for the Performing Arts.
- **Strategy 6:** Encourage and develop a plan to provide special children's performances, lecture demonstrations and master classes by touring artists scheduled to perform at the Center for the Performing Arts.

- **Strategy 7:** Establish a plan to produce youth oriented performing arts programming, such as young people's concerts, children's theater and participatory dance activities.
- **Strategy 8:** Investigate the feasibility of a Festival of the Arts featuring local art organizations, regional professional companies and touring artists on a scale similar to Community Days.
- **Strategy 9:** Investigate the feasibility of a program to permanently provide art in public places.
- **Strategy 10:** Develop a plan to incorporate a space for rotating art exhibitions in public facilities where practical and appropriate.

Goal III, Policy E – Public Meeting Space: The City shall seek to provide meeting space for both public and private purposes consistent with approved policies and legal constraints.

- **Strategy 1:** Public meeting space shall be designed to meet community needs and shall be available at rental rates comparable with fees charged by other public agencies for similar facilities.

Goal III, Policy G – Disabled Services: The City shall seek to develop avenues for residents with special needs to participate in a variety of recreational programs and activities.

- **Strategy 1:** Work closely with existing programs provided by service organizations and PUSD and research and consider for development, both mainstream and specialized programs based on the needs of the community.
- **Strategy 2:** Maintain an appropriate level of staff training and volunteer coordination relating to the special needs population.

Goal VII, Policy B – Fire Protection: The City shall maintain a high standard for the delivery of fire protection services.

- **Strategy 1:** Encourage the development, implementation and public awareness of fire prevention programs.
- **Strategy 2:** Implement programs to reduce the quantity of combustible vegetative materials in the City to reduce wildlife fire hazards including a brush management program subject to approval by the City.
- **Strategy 3:** Continue the use of the Weed Abatement Program and a fire buffer program along heavily traveled roads through thinning, disking or controlled burning, subject to air quality standards. Brush, but not trees should be cleared from both sides of major arterials.
- **Strategy 4:** The existing rows of eucalyptus trees should be trimmed periodically, and combustible vegetative materials at the tree base should be periodically removed.
- **Strategy 5:** All proposed development shall satisfy the minimum structural fire protection standards contained in the adopted editions of the Uniform Fire and Building Codes; however, where deemed appropriate the City shall enhance the minimum standards to provide optimum protection.
- **Strategy 6:** Fire protection requirements shall be expanded where structural and/or capital improvements cannot adequately protect the community from property damage or potential loss of life.
- **Strategy 7:** Study the feasibility of regulations requiring the installation of a sprinkler system at the time of construction of new residential structures and in conjunction with expansion or substantial interior remodeling of existing structures.
- **Strategy 8:** Require fire retardant roofing materials based upon the type of construction in and outside the high fire hazard areas.

- **Strategy 9:** Enforce the fire control requirements of the City's landscape standards.
- **Strategy 10:** In order to minimize fire hazards, the Poway Fire Department shall routinely be involved in the review of development applications. Consideration shall be given to adequate emergency access, driveway widths, turning radii, fire hydrant locations and needed fire flow requirements.
- **Strategy 11:** Advocate and support State legislation which would provide tax incentives encouraging the repair or demolition of structures which are classified as high fire hazards.
- **Strategy 12:** The construction of public facilities and transportation corridors shall be consistent with the adopted standards of the Uniform Building Code and Uniform Fire Code.
- **Strategy 13:** Fire stations shall be located on or near arterial roadways to provide for rapid response times.
- **Strategy 14:** The timing of a station construction shall relate to the rise of service demand in the surrounding areas.
- **Strategy 15:** The location of stations should consider existing and projected land uses and appropriate buffering should be provided where necessary.
- **Strategy 17:** Emphasis on future construction and capital improvements should be toward the alleviation of deficiencies in critical risk areas.
- **Strategy 18:** Opportunities for joint-power agreement facilities and/or operations should be evaluated and pursued where practical.
- **Strategy 19:** Support mutual aid agreement and communication links with the County and the other municipalities participating in the Unified San Diego County Emergency Service Organization.

Goal VII, Policy B – Regional Facilities: Support the construction of appropriately sited and designed facilities to serve regional and/or subregional public facility needs.

- **Strategy 3:** Enhance the quality of library services through cooperation with other library agencies in the region.

Goal VII, Policy D – Law Enforcement: The City shall secure high-quality law enforcement so as to maintain a sense of personal safety and security for the residents of Poway.

- **Strategy 1:** Routinely involve law enforcement personnel in the review of new development applications as they relate to street access and safety and to the concept of defensible space.
- **Strategy 2:** The central focus of law enforcement in the City of Poway should be protection of life and property.
- **Strategy 3:** Continue to promote the establishment of neighborhood watch programs to encourage community participation in the patrol and to promote awareness of any suspicious activity.
- **Strategy 4:** Promote crime prevention programs for commercial and industrial areas.

Goal VII, Policy F – Emergency Plan: The City shall be prepared to successfully manage public emergencies which may occur.

- **Strategy 1:** Pursue new ideas, plans and programs to improve Poway's Emergency Plan.
- **Strategy 2:** Maintain the Fire Department Classroom at Station 1 as a permanent emergency operations center and a secondary command post. Keep it equipped with sufficient supplies to begin operations immediately in the case of a disaster.
- **Strategy 3:** Encourage volunteer and civic organizations to educate and equip themselves to provide community emergency assistance, if necessary.

- **Strategy 4:** Develop an accurate citywide resource inventory of locally available supplies, equipment and heavy vehicle and devise a state of emergency procurement procedure.
- **Strategy 5:** Utilize the Emergency Plan to provide direction to all persons responsible for acting in a disaster situation.

City of Poway Development Impact Fees – Fire Protection Impact Fees

The City implements development impact fees in order to mitigate the impacts of new developments. The proposed project would be subject to applicable impact fees to ensure that fire department facilities, apparatus, and vehicle standards are met with respect to the potential additional services needed with the new development. The current fire protection impact fees for single-family residential development in the City are $122.03 per unit (City of Poway 2008).

4.13.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to public services are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to public services would occur if the project would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    a. Fire protection.
    b. Police protection.
    c. Schools.
    d. Parks.
    e. Other public facilities.

4.13.4 Impacts Analysis

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

Fire protection?

Fire Station 2 is the closest station to the proposed project site, located less than one-half mile to the east at 16912 Westling Court. The proposed project would develop 160 new single-family dwelling units, up to 30,000 gross square feet of recreational buildings and spaces, and various open space areas like multi-use trails. According to The Farm in Poway Specific Plan (Specific Plan), emergency medical services would be provided by the City of Poway's Fire Department (The Farm in Poway LLC 2020). The nearest emergency facility is the Palomar Medical Center, which is located approximately three and a half miles southwest of the project site.

A relatively small area in northeast portion of the project site would be located within a VHFHSZ (see Figure 4.13-1, Very High Fire Hazard Severity Area [VHFHSZ] Map). This area has a Residential – Homestead (R-H) land use designation and all proposed homes in this area would be subject to the R-H development standards. Development standards for the R-H land use district reflect the fire hazard designation in this area and would include additional setbacks and building standards (The Farm in Poway LLC 2020), including compliance with California Building Code Chapter 7A and the City's Fire Code as it relates to fuel management and defensible space.

The capital facilities required to provide fire services are funded through the City's development impact fee programs. The Fire Protection Impact Fees levied against the proposed project would address the proposed project's proportional impact on capital facilities, such as structure, vehicles, and equipment associated with fire protection. The City would require the proposed project to pay a fee of $122.03 per unit (City of Poway 2008) to ensure that the City's public facility standards are met with respect to the additional needs created by the proposed project.

As discussed in Section 4.13.1, Existing Conditions, the PFD's travel time goal is to arrive on scene within six minutes 90 percent of the time. The closest fire station to the project site is Fire Station 2, to which the furthest structure in the proposed project would be approximately 2.3 miles. According to the Specific Plan, the estimated travel time between Fire Station 2 and the furthest proposed structure is less than five minutes via Espola Road, which is within the established travel time goal. Additionally, according to the City's Deputy Fire Chief, Jon M. Canavan, there are no department goals regarding ratio of firefighters per capita (Canavan, pers. comm. 2019).

Payment of the City's development impact fees would ensure that the proposed project's proportional impact on capital facilities associated with fire protection—such as fire department structures and equipment—would be adequately addressed. Additionally, fire protection services are able to arrive within the travel time goal established by the PFD, and there are no additional staffing requirements anticipated for development of the proposed project. Therefore, the proposed project would cause a **less-than-significant** impact.

Police protection?

The proposed project would increase demand on police protection services with the introduction of 160 new residential units and approximately 500 people. The San Diego County Sheriff's Poway Station is located on 13100 Bowron Road, approximately 6.5 miles south of the project site. As discussed in Section 4.13.1, the San Diego County Sheriff's Department received 917 calls for service from within the City during April 2019 (San Diego County Sheriff 2019). Based on an estimated City population of 50,000, the calls-for-service-to-residents ratio would be approximately one call per 54 residents. The proposed project would bring in approximately 500 people, resulting in potentially 10 additional calls for service each month, and potentially 100 additional calls for service each year. This number reflects a conservative estimate. The San Diego County Sheriff's Department serves the following communities: 4S Ranch, Alpine, Fallbrook, Imperial Beach, Lakeside, Lemon Grove, North Coastal, Poway, Ramona, Rancho San Diego, Rural, San Marcos, Santee, Valley Center, and Vista (San Diego County Sheriff n.d.). The highest number of calls for service in April 2019 came from Vista, with 2,860 calls made. Vista represents approximately 16 percent of all calls for service made, whereas the City's calls for service represent approximately five percent of all calls made in April 2019 (San Diego County Sheriff 2019). The City represents a smaller portion of calls for service made, relative to the other communities served by the San Diego County Sheriff's Department. Therefore, the potential increase in calls for service as a result of the proposed project would be insignificant.

As discussed in Section 4.13.1, the Poway Station does not have response time goals based on geographical neighborhoods and they do not have department goals for staffing specific to the City. The current approximately officer/staff ratio per resident is one to 1,000 residents. Staffing goals are based on factors like service calls, geographical size, and crime statistics. The staffing goal calculation for the City are not reliant heavily on resident numbers, therefore staffing ratios would not be adversely impacted by the proposed project (Collier, pers. comm. 2019).

The proposed project would be subject to payment of public facilities development impact fees at the rate in effect at the time building permits are issued. The amount is determined through evaluation of the need for new law enforcement facilities as it relates to the level of service demanded by new development, which varies in proportion to the equivalent dwelling unit generated by a specific land use. The development impact fees address the proposed project's proportional impact on capital facilities, such as structures and equipment, associated with police protection. It does not address the impact associated with operations and maintenance for those facilities. Public funds such as property taxes, sales taxes, and fees generated by the proposed project would be used to cover the incremental costs associated with providing police services. Net revenues are used to finance operations and maintenance costs associated with the public services required to serve the proposed project. The proposed project would be required to pay the development impacts fees, which would be used exclusively for future facility improvements necessary to ensure that the development contributes its fair share of the cost of law enforcement facilities and equipment determined to be necessary to adequately accommodate new development in the City, which is serviced by the San Diego County Sheriff's Department.

The potential increase in population would not affect the Poway Station's ability to serve the City, would not significantly impact staffing ratio goals, and would be sufficiently served with payment of applicable fees. Therefore, expansion of existing facilities or construction of new facilities would not be required or included as part of the proposed project. Impacts would be **less than significant** with payment of applicable fees and no mitigation would be required.

Schools?

The proposed project would result in 160 new single-family dwelling units, and thus would increase the student population within the assigned local schools. The project site is located within the PUSD. The residents of the proposed project site would send students to Chaparral Elementary, Twin Peaks Middle School, and Poway High School (Little, pers. comm. 2019a).

According to student generation rates used for single-family detached homes in PUSD's School Facility Needs Analysis dated September 13, 2018, the proposed project could generate 65 elementary students, 24 middle school students, and 21 high school students (see Table 4.13-3), for a total of 110 students total (PUSD 2018b; Little, pers. comm. 2019a).

Table 4.13-3. Projected School Enrollment as a Result of the Proposed Project

School Education Level/School Facility	Number of Single-Family Homes	PUSD Student Generation Rate	Total Projected Students
Elementary School			
Chaparral Elementary	160	0.4037	65
Middle School			
Twin Peaks Middle School	160	0.1485	24
High Schools			
Poway High School	160	0.1282	21
Total	**160**	**–**	**110**

Sources: Little, pers. comm. 2019a; PUSD 2018b.
Note: PUSD = Poway Unified School District.

Table 4.13-4 identifies the schools that would be likely to accommodate students from the proposed project, their design capacity, and the projected enrollment for those schools for the 2022–2023 school year.

Table 4.13-4. Projected School Enrollment for 2022–2023 School Year

	Grade Level	Capacity	2017–2018 School Year Enrollment	Projected Enrollment 2022–2023	Current Percentage of Projected School Capacity
Elementary School					
Chaparral Elementary	TK–5	1,155	844	946	82%
Middle School					
Twin Peaks Middle School	6–8	1,496	1,193	1,132	76%
High Schools					
Poway High School	9–12	2,950	2,263	2,151	73%

Sources: Little, pers. comm. 2019a; The Farm in Poway LLC 2020.
Note: TK = transitional kindergarten.

Although Table 4.13-4 indicates available capacity at the schools that would serve students from the proposed project, based on a letter provided by PUSD during the NOP comment period dated June 7, 2019, Chaparral Elementary may become impacted as a result of new developments, including the proposed project (Little, pers. comm. 2019a). In addition, PUSD's School Facility Needs Analysis also identified deficient capacity may exist at the middle school level (PUSD 2018b). Due to possible overcrowding, PUSD cannot ensure that all students would be accommodated. However, schools are funded through the payment of development impact fees pursuant to SB 50/Government Code Section 65995, which would be paid prior to issuance of building permits. According to SB 50, payment of developer impact fees constitutes adequate mitigation related to impacts to school facilities.

PUSD currently collects Level II fees based on the square footage of new residential units. According to the Developer Fee Information page on the PUSD website, Level II fees are those intended to represent 50 percent of a school district's school facility construction costs per new home served, while Level III fees are intended to represent 100 percent of a school district's school facility construction costs per new home served. Until September 13, 2019, Level II

residential fees without mitigation agreements are $3.09 per square foot, and Level III residential fees without mitigation agreements are $7.80 per square foot (PUSD n.d.). Fees paid by the developer would be used to offset the impact of the number of new students generated by the development of the proposed project.

In recognition of the impact on school facilities created by new development, the school district and the development have the option of entering into various alternative mitigation agreements to ensure the timely construction of school facilities to house students from new residential development. The primary financing mechanism authorized in these mitigation agreements is the formation of a communities facilities district, pursuant to the Mello-Roos Community District Act of 1982.

In lieu of an alternative mitigation agreement, the proposed project would be required to pay state-mandated school facilities fees to PUSD (Level II) to contribute to a fair-share amount to help maintain adequate school facilities and levels of service. Regulatory compliance ensures that there would be sufficient facilities to serve the proposed project's additional students. Ultimately, the provision of schools is the responsibility of the school district. SB 50 provides that the statutory fees found in the Government and Education Codes are the exclusive means of considering and mitigating for school impacts. Imposition of the statutory fees constitutes full and complete mitigation (Government Code Section 65995[b]).

The proposed project would either pay the state-mandated school fees or enter into a School Mitigation Agreement(s) to ensure that schools are built as population increases during the phased development. Development of a new school would be undertaken by the school district and an environmental document would be prepared at such time. According to a letter provided by PUSD dated July 2, 2019, and pursuant to Education Code Section 17620(a)(1), the governing board can authorize the levy of a fee, charge, dedication, or other requirements against any construction within District boundaries, and with the District's collection of Statutory and Alternative fees developers could fully mitigation their impact (Little, pers. comm. 2019b). Therefore, impacts related to school facilities would be **less than significant**.

Parks?

The dedication of parkland or payment of in-lieu fees is regulated pursuant to Chapter 16.38, Parkland Dedication Procedure, of the City's Municipal Code (City of Poway 1984). Impacts associated with parks and open space are discussed in Section 4.14.

Other public facilities?

The proposed project includes 160 single-family dwelling units in the City, which would increase the number of people (approximately 500) to be potentially serviced by the Poway Community Library—the only public library within the City. The General Plan states that its ultimate goal is to provide a library facility that has 0.5 to 0.8 square feet of library space per resident and three to five items of library materials per resident (City of Poway 1991). The existing library would adequately service the future residents of the proposed project. Furthermore, the proposed project does not specifically include development of a library, and the San Diego County Library system does not currently plan on building or expanding a library in the vicinity of the project site (SDCL n.d.b). Therefore, construction or expansion of existing library facilities would not be required. Additionally, existing County policies and regulations ensure the ongoing provision of library facilities, the expansion of which would be subject to separate environmental review. As no new or expanded public library facilities would be required, public library facility impacts would be **less than significant**.

4.13.5 Cumulative Impacts

Cumulative projects in the City have the potential to result in a significant cumulative impact in which substantial adverse physical impacts are observed in association with the expansion of public service buildings or the building of new public service buildings to accommodate the new residents brought on by other projects. These cumulative projects include 21 projects in the City, five projects in the City of San Diego, and five projects in the City of Escondido (see Table 3-2, Cumulative Projects). Although projects in the City of San Diego and the City of Escondido would have no impact on library services, as library services are city specific, they could have potential impacts to fire protection and police protection services due to mutual aid agreements between cities. Additionally, the PUSD boundary serves a portion of the City of San Diego and therefore projects there could have a potential cumulative impact.

Fire Protection

Future growth in the area would generate additional demand on fire protection services, which may require the construction or expansion of services and facilities to maintain acceptable travel times and adequate levels of service. Although some cumulative projects are located outside of the City, mutual aid agreements between cities could potentially cause an impact on the City's fire protection services. However, the event in which another city requests aid is rare and therefore negligible. As required by the City's Fire Code (City of Poway 2016), each cumulative project would be required to ensure adequate availability for fire service and that travel times are met. If a project results in potential impacts on fire service or travel times, that project would be required to mitigate such impacts. In addition, each cumulative project would be required to demonstrate compliance with all applicable laws and regulations regarding fire protection services and facilities. Therefore, impacts to fire protection services or facilities would not be cumulatively considerable and impacts would be **less than significant**.

Police Protection

Development of the proposed project would result in an incremental increase in demand on law enforcement services and, when combined with the demand associated with anticipated population growth and other potential cumulative development projects, additional police personnel, support staff, and related equipment and facilities would be required to effectively meet the demands of the proposed project and anticipated future development in the surrounding area. Although some cumulative projects are located outside of the City, mutual aid agreements between cities could potentially cause an impact on the City's police protection services. However, the event in which another city requests aid is rare and therefore negligible. Payment of the required development impact fees would be required by the proposed project and all other cumulative projects. The development impact fees address a project's proportional impact on capital facilities, such as structures and equipment, associated with police protection. Public funds such as property taxes, sales taxes, and fees generated by the cumulative projects would be used to cover the incremental costs associated with providing police services.

As noted, the proposed project would not require construction of any additional law enforcement facilities at this time. Future growth in the cumulative area would generate additional demand for law enforcement protection to maintain acceptable response times and adequate levels of service. The cumulative increase in demand for law enforcement could result in the expansion of existing facilities or the construction of new facilities, which could have adverse impacts on the environment; however, all new or expanded facilities would be required to undergo environmental review and be required to demonstrate compliance with the General Plan. As stated above, the proposed project's financial contribution through taxes accumulated from future residents would contribute to the

future expansion or construction of new facilities to maintain adequate levels of service. Therefore, because the expansion of existing or the construction of new facilities would be required to undergo CEQA review, and because the proposed project would contribute its fair share financial contribution through development impact fees and ongoing tax assessments to maintain adequate levels of service, impacts to police protection services or facilities would not be cumulatively considerable. Impacts would be **less than significant**.

Schools

Cumulative projects that involve residential development would increase the public school population in the cumulative project area. The PUSD services the City and also a portion of the City of San Diego. The increase in demand for school facilities could result in the expansion of existing or the construction of new facilities, which could have adverse impacts on the environment; however, all new or expanded facilities would be required to undergo environmental review and be required to demonstrate compliance with the General Plan. The proposed project would be subject to assessment of applicable school fees at the rate in effect at the time of issuance of building permits; therefore, the proposed project would not result in a cumulatively considerable contribution to the additional demand on existing school facilities within the districts, and would not result in a significant cumulative impact. Impacts would be **less than significant**.

Parks

A cumulative impact analysis for parks is found in Section 4.14.

Libraries

Population-inducing projects would generate the need for additional public libraries or increased square footages at existing public libraries; however, the San Diego County Library has no plans to expand an existing library or to construct a new library to service the proposed project. In the future, if new or expanded libraries are proposed, they would be subject to the same environmental review procedures as all other development projects. Any identified significant impacts would be required to be mitigated to the extent feasible. Therefore, the proposed project in combination with cumulative projects, would not be cumulatively considerable and impacts would be **less than significant**.

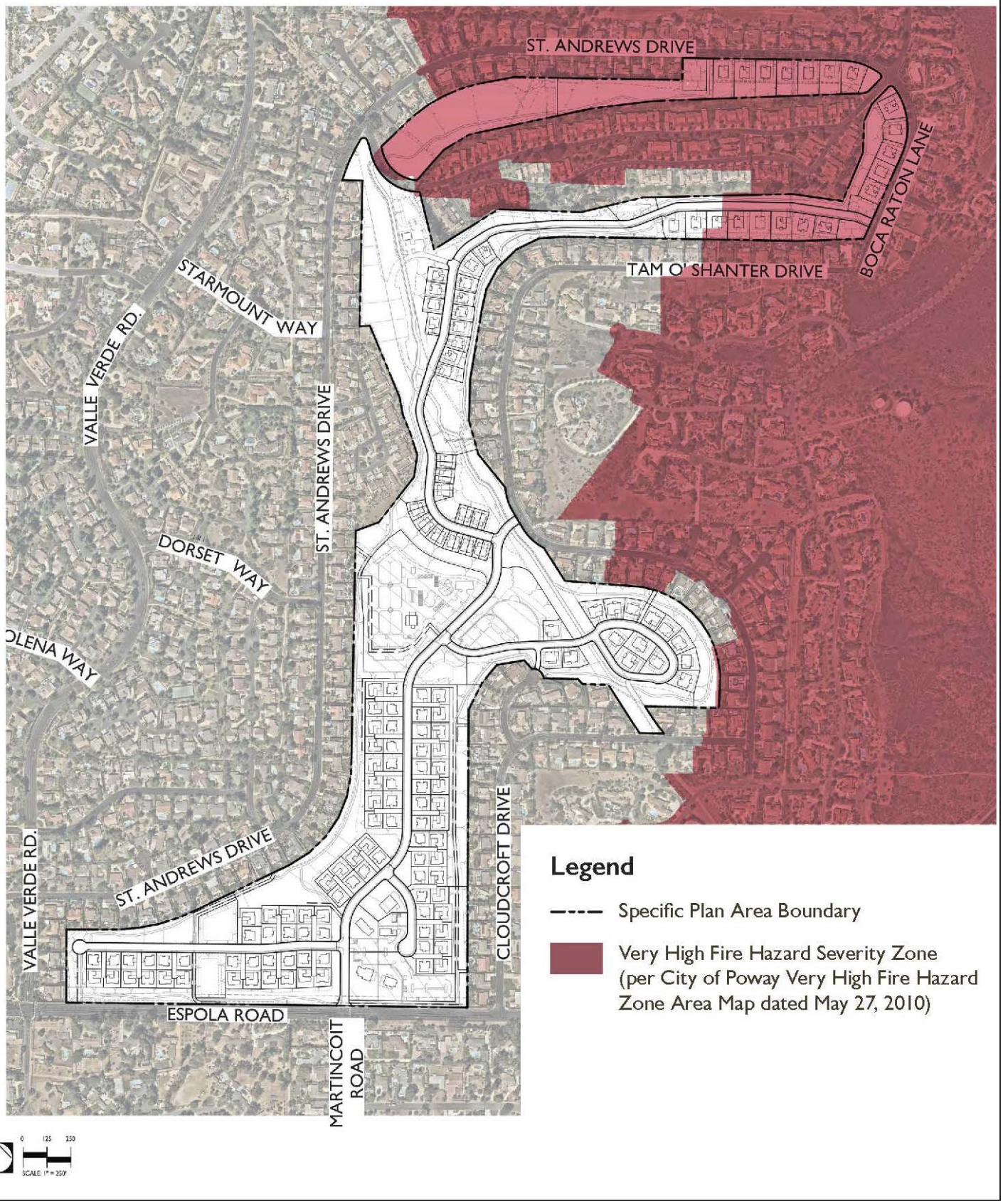
4.13.6 Mitigation Measures

As previously stated, all potential impacts to public services as a result of the proposed project would be less than significant, and no mitigation would be required.

4.13.7 Level of Significance After Mitigation

Impacts associated with the construction of new or expansion of existing public facilities would be **less than significant**.

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SOURCE: The Farm in Poway, LLC, 2020

FIGURE 4.13-1

Very High Fire Hazard Severity Area (VHFHSZ) Map

The Farm in Poway

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4.14 Recreation

This section describes the existing recreation conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, No comment letters related to recreation were received.

The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this Environmental Impact Report (EIR).

4.14.1 Existing Conditions

The City of Poway (City) provides recreational areas and facilities in the areas surrounding the project site, as described below.

City Recreational Facilities

There are currently 20 parks located within the City, including neighborhood parks, recreation-based parks, and one ecological reserve (City of Poway n.d.a). These parks range in size from small urban neighborhood recreation areas to the over 700-acre Blue Sky Ecological Reserve. Recreational amenities around the City include playgrounds, a skate park, a swim center, sports fields, and hiking opportunities. Lake Poway also serves as a recreational area with open park space, picnic tables, boating docks, and trails around the lake.

The City classifies parks and recreation facilities based on their service area, size, primary function, and the facilities they offer. The five classifications include miniparks, neighborhood parks, community parks, regional parks, and special use areas. Park areas can be developed with either active or passive park amenities or a combination of both. Active park amenities may include gymnasiums, swim complexes, multi-use ballfields, tot lots, hard court play surfaces, volleyball courts, horseshoe areas, or a combination thereof. Passive park amenities generally include nature trails, walkways, picnic tables, benches, and small lawns or landscaped areas (City of Poway 1991).

Miniparks

Miniparks are intended to provide passive and limited recreational activities. The service area for miniparks is one-quarter mile, facilities should consist of less than three acres, and these parks should be located within confined neighborhoods and are designed to serve people living in the immediate area (City of Poway 1991). No existing miniparks would serve the proposed project.

Neighborhood Parks

Neighborhood parks provide for both active and passive recreation activities. The service area for neighborhood parks is one-half mile, facilities should have an area of at least three to 10 acres, and these parks should be located centrally to the residential development served (City of Poway 1991). The closest neighborhood park to the proposed project is the Valle Verde Neighborhood Park located approximately 250 feet from the southwest corner of the project site. Amenities at the Valle Verde Neighborhood Park include a baseball field, volleyball court, soccer field, playground, and picnic tables (City of Poway n.d.a).

Community Parks

Community parks generally provide a diverse range of facilities and equipment, which may include a variety of athletic fields and game courts as well as indoor facilities. Community parks generally serve a number of neighborhoods and have a service area radius of one to two miles; facilities should have an area of at least 10 to 40 acres and serve a population of 20,000 people (City of Poway 1991). The closest community park to the proposed project is the Poway Community Park located approximately four and a half miles south of the project site. While this distance is greater than the prescribed one to two mile service area, the Poway Community Park would serve future residents of the proposed project for a variety of recreational activities that are not available at other parks within the City. Amenities at the Poway Community Park include a skate park, swim center, various ball fields and courts, a large playground, a senior center, and a dog park (City of Poway n.d.a).

Regional Parks

Regional parks generally offer a wide variety of outdoor facilities not found in neighborhood and community parks, which may include campgrounds, hiking and riding trails, and lakes. Regional parks serve the entire community, may attract visitors from as much as three hours driving distance, and size requirements are 100 acres and above (City of Poway 1991). The closest regional parks to the proposed project are the Blue Sky Ecological Reserve and the Lake Poway Recreation Area located approximately 0.75 miles east and 1.65 miles southeast of the project site, respectively. The Blue Sky Ecological Reserve offers outdoor nature education programs and hiking trails while the Lake Poway Recreation Area includes the lake for boating and fishing as well as hiking and riding trails, large picnic areas, pavilion and gazebos, lighted ball field, horseshoe pits, sand volleyball courts, tot lots, and restrooms and concessions.

Special Use Areas

Special use areas and facilities are those that are developed for specific types of use rather than a broader range of multiple park and open space uses. There is no specific site area requirements for special use areas and facilities. Facilities in this category include golf courses, sports complexes, cultural centers, historic sites, trails, nature preserves, zoos, and concert bowls (City of Poway 1991). Examples of special use areas in the City include the Maderas Golf Club and the Kumeyaay Ipai Interpretive Center, located approximately 0.4 miles northeast and four and a half miles south of the project site, respectively.

Trails

Trails provide a linkage between parks and open space within the City. The City's trails system has more than 55 miles for hiking, biking, and horseback riding (City of Poway n.d.b). In addition to the trails located at the Blue Sky Ecological Reserve and Lake Poway Recreation Area, there are many urban trails throughout the City, as well as popular open space trails such as the Iron Mountain trail.

San Dieguito River Park

The San Dieguito River Valley Regional Open Space Park Joint Powers Authority (also known as the San Dieguito River Park) is the agency responsible for creating natural open space park in the San Dieguito River Valley. The San Dieguito River Park extends from the ocean at Del Mar eastward to Volcan Mountain, just north of Julian (San Dieguito River Park n.d.). The San Diego River Park Headquarters is located in the City of Escondido, approximately three-fourths of a mile north of the project site, directly on the Escondido/Poway border. The San Dieguito River Park encompasses more than 65 miles of trails, with most open to hikers, bikers, and equestrians.

4.14.2 Relevant Plans, Policies, and Ordinances

Federal

National Trails System Act of 1968 (Public Law 90-543)

The National Trails System Act instituted a nationwide system of interstate riding and hiking trails. At the state level, the California Department of Parks and Recreation has prepared the California Recreational Trails Plan. Federal and state governments realize the importance of preserving and developing new riding and hiking trails and adopted this legislation to protect existing trails and provide for new trails and related facilities.

State

California Department of Parks and Recreation

The California Department of Parks and Recreation manages 280 park units that protect and preserve a collection of culturally and environmentally sensitive areas. The department is responsible for almost one-third of California's scenic coastline, coastal wetlands, estuaries, beaches, and dune systems, in addition to wilderness areas, terrestrial reserves, and historical structures. It also manages nearly 1.6 million acres, with over 340 miles of coastline; 970 miles of lake, reservoir, and river frontage; 15,000 campsites; and 4,500 miles of hiking, biking, and equestrian trails (California DPR 2015, n.d.). The legal charter of the California Department of Parks and Recreation, as required by the California Public Resources Code and the California Code of Regulations, among others, calls for it to "administer, protect, provide for recreational opportunity, and develop the State Park System; to interpret the values of the State Park System to the public; to operate the Off-Highway Motor Vehicle Recreation Program; to administer the California Historical Resources Protection Program; and to administer federal and state grants and bonds to local agencies" (California DPR 2001:9).

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

Quimby Act

Passage of the 1975 Quimby Act (California Government Code, Section 66477) authorized cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. The goal of the Quimby Act is to require developers to help mitigate the impacts of property improvements. The act gives authority for passage of land dedication ordinances only to cities and counties. Special districts must work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The fees must be paid and land conveyed directly to the local public agencies that provide park and recreational services communitywide.

Landscaping and Lighting Act

The Landscaping and Lighting Act (California Streets and Highways Code, Section 22500 et seq.) enables cities, counties, and special districts to acquire land for parks, recreation, and open space. A local government may also use the assessments to pay for improvements and maintenance to these areas. In addition to local government agencies (i.e., counties and cities), park and recreation facilities may be provided by other public agencies, such as community service districts and park and recreation districts. If so empowered, such an agency may acquire, develop, and operate recreational facilities for the general public.

Local

Poway Comprehensive Plan: General Plan – Public Facilities Element

The Public Facilities Element of the Poway Comprehensive Plan: General Plan (General Plan) includes the following policies and strategies regarding recreation resources (City of Poway 1991):

Goal II, Policy B – Distribution of Land Uses: Land uses should be distributed so as to encourage in-fill development within the built-up parts of the City, protect the integrity of existing land uses and densities and preserve the open space and rural nature of Poway.

Goal II, Policy D – Public Services Constraints: The land use pattern and population should be consistent with the capability of existing and planned public services and facilities.

Goal III, Policy A – Parks: A diversified comprehensive park system should be provided for the residents of Poway, utilizing adopted standards, contemporary concepts and planning strategies.

- **Strategy 2:** All park land dedicated as a requirement of residential development shall be developed and used for park purposes.
- **Strategy 3:** Seek to ensure that every neighborhood is served within a one half mile radius by an elementary school site or park.
- **Strategy 4:** Seek to provide adequate playing fields to serve the organized sports needs of the residents including softball, soccer and other organized sports.
- **Strategy 7:** Neighborhood parks shall serve as the day-to-day recreational areas of the City. The facilities should include playgrounds playing fields and turf areas where local residents can enjoy the outdoors in a safe and refreshing environment.
- **Strategy 9:** Include preschool age and handicapped accessible equipment in each park and provide balanced active and passive recreational opportunities.
- **Strategy 10:** Design all parks to incorporate xeriscape landscaping techniques.
- **Strategy 12:** Maintain legislation under the Quimby Act to require the dedication of land, payment of in-lieu fees, or a combination thereof, as a condition of residential development approval, to the equivalent of five acres of land per 1,000 population anticipated in the proposed development.

Goal III, Policy B – Recreational Facilities: The City shall seek to provide a wide range of facilities which address the recreational needs of all ages in the community.

- **Strategy 1:** Promote added family activity facilities to serve the community.

Goal III, Policy C – Private Recreational Facilities: The City encourages the development of private recreational facilities to fulfill a portion of the City's recreational needs.

- **Strategy 1:** Private recreational facilities can be used to reduce the total amount of land to be dedicated and or fees paid in lieu to 50 percent of the requirement per residential development proposal.
- **Strategy 2:** Private recreational facilities shall meet the standards for similar public facilities.
- **Strategy 3:** Private recreational facilities shall be maintained by the developer, owner, a homeowners' association or an assessment district.
- **Strategy 4:** Adequate provisions shall be made to ensure that private recreational facilities remain available in perpetuity or the residents and the City shall be compensated accordingly.

City of Poway Development Impact Fees

Park Mitigation Fees

The City implements park mitigation fees for residential developments to ensure that park land and recreational facility standards are met with respect to the additional needs created by such development. The current park mitigation fees for single-family residential development in the City are $4,562 per dwelling unit (City of Poway 2008, 2019).

The alternative to park mitigation fees is the dedication of land for park and recreational facilities at a ratio of five park acres to 1,000 population (City of Poway 1984).

4.14.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to recreation are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to recreation would occur if the project would:

1. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
2. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.14.4 Impacts Analysis

Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The closest parks to the project site include Valle Verde Neighborhood Park, Blue Sky Ecological Reserve, and Lake Poway Recreation Area located approximately 250 feet, 0.75 miles, and 1.65 miles away, respectively. The proposed project would replace the abandoned StoneRidge Country Club and golf course, resulting in an increase of approximately 160 single-family dwelling units and other land uses in the City and provide approximately 70.37 acres of open space and recreational uses on site. The proposed project would incorporate an extensive open space system comprised of agriculture fields, community gardens, naturalized open space, developed parkland at The Meadow open play area and amphitheatre, a dog park, a tot lot, and a trail system circulating and

surrounding the project site. Additionally, the proposed project would include more intensive active recreational facilities, including a membership-based fitness center, tennis and pickle ball courts, a swimming pool, and various community rooms at The Club, located in the middle of the project site (see Figure 1-1, Site Plan).

Pursuant to the City's parkland dedication requirements, the proposed project would require five acres of parkland for every 1,000 people (City of Poway 1984). Pursuant to Poway Municipal Code Section 16.38.100, 50 percent of private recreation facilities can be counted towards the required amount of park acreage (City of Poway 1984). The proposed project would include 160 single-family homes and is estimated to result in a population of 500 (The Farm in Poway LLC 2020). Thus, the proposed project would be required to dedicate 2.5 acres of parkland, per the City's Municipal Code parkland dedication requirements. Park requirements are fulfilled by the multitude of recreational amenities provided in both the Recreational Open Space and Conservation Open Space. Although these amenities are privately owned and maintained, the Poway Municipal Code allows 50 percent of private recreation facilities to be counted towards the required amount of park acreage (Credit Acreage). Furthermore, these facilities would be open to the public, thereby meeting park and recreational demands because they are not actually "private" as the term is used in the Poway Municipal Code. The Farm in Poway Specific Plan (Specific Plan) provides approximately 9.64 acres of parkland (recreational and trail facilities) that counts toward the park requirements, as is part of the over 70 acres of open space areas in the project site (The Farm in Poway LLC 2020). Therefore, the project would exceed the requirement of 2.5 acres of parkland.

This would ensure that the City's established park land and recreational facility standards are met with respect to the additional needs created by the proposed development. Due to the development of on-site open space and recreation areas, increase in the use of existing parks and recreational facilities within the City is not expected to result in substantial deterioration or adverse effects to those existing parks or facilities. Therefore, impacts would be **less than significant.**

Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

The proposed project would include the construction of a fitness center, tennis and pickle ball courts, a swimming pool, open space areas, a trail system, a dog park, and additional recreational facilities. The developer would provide on-site park land provisions that ensure that the park land and recreational facility standards established by the City are met with respect to the additional needs created by the development. Proposed recreational facilities and all other components of the proposed project are analyzed for any adverse physical impacts on the environment throughout this EIR. Construction of the proposed project would not require the construction or expansion of existing off-site recreational facilities, and all proposed recreational facilities would be compatible with surrounding land uses and in compliance with City standards. Therefore, impacts would be **less than significant**.

4.14.5 Cumulative Impacts

The geographic scope of the cumulative impact analysis for recreational facilities is limited to those projects within the City limits (see Figure 3-11, Cumulative Projects, and Table 3-2, Cumulative Projects). Cumulative projects in the City would have the potential to result in a significant cumulative impact if they would, in combination, result in the deterioration of parks and recreational facilities due to increased usage or necessitate the construction of new parks or recreational facilities. Some cumulative projects would have the potential to increase the demand for recreational facilities, which could result in deterioration of existing facilities. Some of

the most notable cumulative projects that could potentially increase the demand for recreational facilities include residential developments such as Liguori Ranch, Outpost, and Poway Commons.

However, the deterioration that would occur to parks and recreational facilities from regional population growth would be offset with funding from new development, such as in-lieu fees for parks or donation of parkland pursuant to the Quimby Act. Each residential project within the City would be required to pay the City's park fee of $4,562 per dwelling unit (City of Poway 2008, 2019). The proposed project would provide park facilities and open space that would be adequate to meet the needs of its resident and be accessible to the general public, including residents of the future cumulative projects. Therefore, residents of the proposed project would not overburden existing park and recreation resources or planned park and recreation resources needed to serve future growth.

Only residential cumulative projects would create demand for recreational facilities. All past, present, and future residential projects in the surrounding area would be required to provide parkland or pay fees to the City. If each cumulative project was not able to provide parkland or park improvements, then payment of the City's park fee would ensure that the City's established park land and recreational facility standards are met with respect to the additional needs created by individual developments. In addition, the majority of cumulative projects would be required to demonstrate compliance with CEQA prior to approval, which would help ensure that potential environmental impacts are adequately addressed at the project level, thereby minimizing the potential for cumulative impacts.

Furthermore, the proposed project includes amenities such as a fitness center, swimming pool, and tennis/pickle ball courts for use by residents and the public on a membership basis. Due to the availability of existing recreational facilities and the proposed project amenities, implementation of the proposed project in conjunction with cumulative projects would not cause a substantial increase in use on existing facilities. Impacts **would not be cumulatively considerable**.

4.14.6 Mitigation Measures

Implementation of the proposed project would not result in significant impacts to parks and recreational facilities. Therefore, no mitigation would be required.

4.14.7 Level of Significance After Mitigation

As previously stated, all potential impacts to parks and recreational facilities as a result of the proposed project would be less than significant, and no mitigation would be required.

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4.15 Transportation

This section describes the existing transportation conditions of The Farm in Poway Project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The analysis provided in this section is based on the Transportation Impact Analysis – The Farm in Poway, prepared by Linscott, Law & Greenspan (LLG) in January 2020. A copy of this report is included as Appendix J to this Environmental Impact Report (EIR). The Transportation Impact Analysis analyzes impacts from the proposed project based on the currently adopted guidelines that focus on automobile delay (or level of service [LOS]). Pursuant to Senate Bill (SB) 743 guidelines, an analysis of vehicle miles traveled (VMT) is also included.

In addition to the vehicular mode analyses, the multi-modal network in the influence of the project study area was also reviewed, including pedestrian, bicycle, transit and alternative vehicle mobility. Collectively, vehicular mobility combined with multi-modal networks were reviewed to help promote local and regional mobility without auto-dependency.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to transportation and traffic focused on the following topics:

- Increased number of vehicles on roadways, which would increase traffic
- Increased traffic on Espola Road
- Increased traffic during peak hour
- Increased cut-through traffic on Martincoit Road
- Safety in school zones
- Vehicle miles traveled
- Pedestrian safety

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.15.1 Existing Conditions

Level of Service

LOS is the term used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is reported differently for signalized intersections and for roadway segments.

Figure 4.15-1, Existing Conditions Diagram, illustrates the existing conditions in the project study area.

Intersections

Signalized and unsignalized intersections were analyzed under weekday 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m. peak-hour conditions. An additional 1:45 p.m. to 3:45 p.m. count was conducted at both signalized and unsignalized

intersections located within a one-mile distance to nearby schools. Average vehicle delay was determined utilizing the methodology found in Chapter 18 of the 2016 Highway Capacity Manual (HCM 6th Edition, as cited in Appendix J) for signalized intersections, and Chapters 19 and 20 of the HCM 6th Edition for unsignalized intersections, with the assistance of the Synchro (version 10) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS. Table 4.15-1 shows the signalized and unsignalized intersection delay categorized for each LOS.

Table 4.15-1. Intersection LOS and Delay Ranges

LOS	Delay (seconds/vehicle)	
	Signalized Intersections	*Unsignalized Intersections*
A	≤ 10.0	≤ 10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	≥ 80.1	≥ 50.1

Source: Highway Capacity Manual, as cited in Appendix J

Street Segments

Street segment analysis is based upon the comparison of average daily traffic (ADT) volumes to the City of Poway (City), San Diego Traffic Engineers' Council/Institute of Traffic Engineers (SANTEC/ITE), and City of San Diego's Roadway Classification, LOS, and ADT Table. These tables provide segment capacities for different street classifications, based on traffic volumes and roadway characteristics (see Appendix B of Appendix J for City of Poway, SANTEC/ITE, and City of San Diego Roadway Classification Table).

Freeway Segments

Freeway segments were analyzed under AM and PM peak hour based on the standards outlined in the California Department of Transportation (Caltrans) Guide for the Preparation of Traffic Impact Studies using the HCM 6th Edition. The freeway analyses were conducted using the Highway Capacity Software (HCS version 7.3). The freeway analysis is based on assessing freeway operations based on traffic volumes, freeway network and other segment-specific characteristics, and reporting freeway volume-to-capacity ratio, speed, and density. Table 4.15-2 presents the freeway segment criteria based on density.

Table 4.15-2. Freeway Segment LOS Criteria

LOS	Density Range (pc/mi/ln)
A	0 – 11
B	> 11 – 18
C	> 18 – 26
D	> 26 – 35
E	> 35 – 45
F	> 45

Source: HCM 6th Edition, as cited in Appendix J.
Note: LOS = level of service; pc/mi/ln = passenger car per mile per lane.

The freeway analyses significance criteria uses volume-to-capacity (v/c) ratio or "speed" as the measures of effectiveness to determine impacts on freeways. While freeway density has been reported in the analyses, v/c was used as the measure of effectiveness to determine significant project impacts on freeways given the software limitations in reporting speeds at congested conditions (i.e., LOS F).

Freeway Ramp Meters

Ramp metering is a means of controlling the volume of traffic entering the freeway with the goal of improving the safety, traffic operations, and flow on the freeway main lanes. Freeway ramp meter analysis estimates the peak-hour queues and delays at freeway ramps by comparing existing volumes to the meter rate at the given location.

The project ramp meters were analyzed using the fixed rate method, which is based solely on the specific time intervals at which the ramp meter is programmed to release traffic. The ramp meter results are theoretical and based on Caltrans' most restrictive meter rates, which were obtained from Caltrans. The ramp meter rates fluctuate during the peak hour; however, to be conservative, the most restrictive rate was used.

Adaptive Traffic Signal Controls

According to the Federal Highway Administration, the key benefits of Adaptive Traffic Signal Control over conventional signal systems is that that it can continuously distribute green light time equitably for all traffic movements, improve travel time reliability by progressively moving vehicles through green lights, reduce congestion by creating smoother flow, and prolong the effectiveness of traffic signal timing.

Case studies have been completed to quantify the benefits of Adaptive Traffic Signal Control. A review of Southern California case studies indicates an average reduction in AM/PM delay of 32 percent, an average reduction in AM/PM travel time of 17 percent, and an average increase in AM/PM travel speed of 29 percent with the implementation of Adaptive Traffic Signal Control. Additional information on Adaptive Traffic Signal Control is includes in Section 18.1.3 of Appendix J.

Multi-modal Analysis

Pedestrian Mobility

Pedestrian network connectivity was evaluated by developing the pedestrian network and performing a pedestrian walkshed analysis for the network.

The pedestrian walkshed analysis evaluates the level of connectivity provided at each study intersection within the pedestrian study area. The walkshed analysis requires first creating a quarter-mile buffer (as the crow files) and then a quarter-mile pedestrian walkshed buffer based on the location of each proposed project access point and the associated walkability infrastructure (e.g., pedestrian crosswalks, sidewalks, pathways, trails).

Existing AM peak hour (7 a.m. to 9 a.m.) and PM peak hour (and 4 p.m. to 6 p.m.) pedestrian crossings were conducted at the same time the vehicular peak-hour traffic counts were conducted when schools were in session. Pedestrian crossing volumes were collected for each leg of each intersection where a crosswalk is provided. In addition, midday (1:45 p.m. to 3:45 p.m.) pedestrian crossings were conducted at the intersections located within the one-mile school buffer zones.

Bicycle Mobility

Bicycle network connectivity was evaluated by developing the bicycle network and performing a bicycle travelshed analysis for the network.

The bicycle travelshed analysis evaluates the level of connectivity provided at each study intersection within the bicycle study area. The bikeshed analysis requires first creating a one-mile buffer (as the crow files) and then a one-mile bikeshed buffer based on the location of each proposed project access point and associated bicycle infrastructure.

Existing AM peak hour (7 a.m. to 9 a.m.) and PM peak hour (and 4 p.m. to 6 p.m.) bicycle volumes were conducted at the same time the vehicular peak-hour traffic counts were conducted when schools were in session. In addition, midday (1:45 p.m. to 3:45 p.m.) bicycle volumes were conducted at the intersections located within the one-mile school buffer zones.

Transit Mobility

Transit mobility was reviewed by documenting transit service within the study area. A walkshed evaluation was also performed to identify locations around the project site where pedestrians could access transit by walking.

Vehicle Miles Traveled

In compliance with SB 743, the Transportation Impact Analysis also evaluates the proposed project's potential vehicular impacts using a VMT metric, pursuant to direction from the state legislature. Public Resources Code Section 20199, enacted pursuant to SB 743, identifies VMT as an appropriate metric for measuring transportation impacts. VMT analysis focuses on the number and length of vehicle trips made by a project's employees and residents.

The methodology used for the proposed project is based on the Governor's Office of Planning and Research (OPR) update to the California Environmental Quality Act (CEQA) Guidelines and Technical Advisory released in November 2017. Given that no criteria or methodologies have been formally adopted, OPR guidance was used to develop significance thresholds and technical methodologies for the proposed project.

Under OPR's proposed revisions to the CEQA guidelines, VMT exceeding an applicable threshold of significance may indicate a significant transportation impact. Furthermore, under the proposed guideline revisions, for projects other than roadway capacity projects, automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant effect on the environment. The proposed revisions to the guidelines would allow a lead agency to elect to evaluate transportation impacts under the revised guidelines at any time and would make the revised guidelines applicable statewide beginning January 1, 2020. A multi-tiered VMT analysis for the proposed project was conducted based on the OPR's guidance.

Vehicular Access

The project site is currently bounded by Valle Verde Road, St. Andrews Drive, Tam O'Shanter Drive, Cloudcroft Drive, and Espola Road. The former StoneRidge County Club and associated 18-hole golf course was accessed via Stoneridge County Club Lane, which is off of Espola Road. Roadways that would provide direct access to the project site are Espola Road, existing residential streets St. Andrews Drive and Boca Raton Lane, and a series of proposed private streets, including motor courts and common access roads. Vehicular access is primarily proposed at the Espola Road/Martincoit Road/Private Street A intersection. Secondary access is proposed at three additional

locations: Cloudcroft Drive/Cloudcroft Court, Boca Raton Lane/Private Street E, and Tam O'Shanter Drive/Private Street A. Gated emergency access is proposed on Espola Road west of the main access intersection, and east of Valle Verde Road (see Figure 1-1, Site Plan).

Study Area

The Transportation Impact Analysis evaluated the existing conditions of the roadways within the study area, which was developed with City staff per the SANTEC/ITE Regional Guidelines for Traffic Impact Studies and the City of San Diego Traffic Impact Study Manual guidelines for intersections, segments, and ramp meters. The study area includes 25 intersections, 46 off-site street segments, four freeway mainline segments, and two ramp meter locations. The major roadways analyzed include Rancho Bernardo Road, Espola Road, Pomerado Road, Avenida Florencia, Stone Canyon Road, Martincoit Road, Twin Peaks Road, Valle Verde Road, and Bernardo Heights Parkway.

Existing weekday daily traffic counts, as well as AM peak hour (7 a.m. to 9 a.m.) and PM peak hour (and 4 p.m. to 6 p.m.) traffic volume counts were collected at the study area intersections and street segments. The majority of the counts were conducted on December 4 and December 11, 2018, while schools were in session. In addition, midday school peak hour (1:45 p.m. to 3:45 p.m.) traffic volume counts were conducted at study area intersections located within the one-mile school buffer zones.

Intersections

The following intersections are included in the study area and analyzed herein:

1. Interstate 15 (I-15) Southbound Ramps/ Rancho Bernardo Rd
2. I-15 Northbound Ramps/ Rancho Bernardo Rd
3. Bernardo Center Dr/ Rancho Bernardo Rd
4. Pomerado Rd/ Rancho Bernardo Rd
5. Summerfield Ln/ Espola Rd
6. Avenida Florencia/ Espola Rd
7. Valle Verde Rd/ Espola Rd
8. Valle Verde Rd/ St Andrews Dr
9. Martincoit Rd/ Espola Rd
10. Cloudcroft Dr/ Espola Rd
11. Old Coach Rd/ Espola Rd
12. Espola Rd/ Lake Poway Rd
13. Espola Rd/Eden Grove
14. Espola Rd/ Twin Peaks Rd
15. Pomerado Rd/ Rios Rd
16. Pomerado Rd/ Avenida La Valencia
17. Pomerado Rd/ Stone Canyon Rd
18. Pomerado Rd/ Bernardo Heights Pkwy
19. Pomerado Rd/ Twin Peaks Rd
20. Avenida Florencia/ Avenida La Valencia

21. Del Norte/ Stone Canyon Rd
22. Martincoit Rd/ Stone Canyon Rd

According to Appendix J, the study area intersections are calculated to currently operate at LOS D or better, except for the following:

- Intersection 17. Pomerado Road/Stone Canyon Road – LOS F/E during the AM/PM peak hours.

Table 4.15-3 provides the study area intersections, the jurisdiction the intersections is within, the control type, and the existing delay and LOS.

Table 4.15-3. Existing Intersection Operations

Intersection	Jur.	Control Type	Peak Hour	Existing	
				Delay[a]	*LOS*[b]
1. I-15 Southbound Ramps/ Rancho Bernardo Rd	Caltrans/ San Diego	Signal	AM	39.8	D
			PM	27.8	C
2. I-15 Northbound Ramps/ Rancho Bernardo Rd	Caltrans/ San Diego	Signal	AM	29.7	C
			PM	33.5	C
3. Bernardo Center Dr/ Rancho Bernardo Rd	San Diego	Signal	AM	25.4	C
			PM	33.4	C
4. Pomerado Rd/ Rancho Bernardo Rd	San Diego	Signal	AM	33.3	C
			PM	42.8	D
5. Summerfield Ln/ Espola Rd	San Diego	Signal	AM	5.2	A
			PM	4.6	A
6. Avenida Florencia/ Espola Rd	Poway	MSSC [c]	AM	17.3	C
			PM	17.2	C
7. Valle Verde Rd/ Espola Rd	Poway	Signal	AM	34.4	C
			PM	18.4	B
8. Valle Verde Rd/ St Andrews Dr	Poway	TWSC	AM	26.9	D
			PM	16.0	C
9. Martincoit Rd/ Espola Rd	Poway	Signal	AM	10.2	B
			PM	7.1	A
10. Cloudcroft Dr/ Espola Rd	Poway	MSSC	AM	18.5	C
			PM	14.3	B
11. Old Coach Rd/ Espola Rd	Poway	Signal	AM	9.7	A
			PM	8.7	A
12. Espola Rd/ Lake Poway Rd	Poway	Signal	AM	15.6	B
			PM	14.7	B
13. Espola Rd/Eden Grove	Poway	Signal	AM	31.0	C
			PM	12.0	B
14. Espola Rd/ Twin Peaks Rd	Poway	Signal	AM	32.6	C
			PM	29.0	C
15. Pomerado Rd/ Rios Rd	San Diego	Signal	AM	10.9	B
			PM	10.7	B

Table 4.15-3. Existing Intersection Operations

Intersection	Jur.	Control Type	Peak Hour	Existing	
				Delay[a]	*LOS*[b]
16. Pomerado Rd/ Avenida La Valencia	San Diego	Signal	AM	9.3	A
			PM	10.0	B
17. Pomerado Rd/ Stone Canyon Rd	San Diego	Signal	AM	93.8	F
			PM	79.3	E
18. Pomerado Rd/ Bernardo Heights Pkwy	San Diego	Signal	AM	36.1	D
			PM	23.1	C
19. Pomerado Rd/ Twin Peaks Rd	Poway	Signal	AM	32.3	C
			PM	36.5	D
20. Avenida Florencia/ Avenida La Valencia	Poway	AWSC [d]	AM	7.5	A
			PM	7.6	A
21. Del Norte/ Stone Canyon Rd	Poway	Signal	AM	18.5	B
			PM	17.1	B
22. Martincoit Rd/ Stone Canyon Rd	Poway	MSSC	AM	9.5	A
			PM	7.8	A

Source: Appendix J.
Notes: Jur = Jurisdiction.
[a] Average delay expressed in seconds per vehicle.
[b] Level of Service
[c] Minor Street Stop Controlled intersection. Minor street left-turn delay reported.
[d] All-Way Stop Controlled intersection. Average intersection delay reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

Street Segments

The following street segments are included in the study area and analyzed herein.

Segments One through Five: Rancho Bernardo Road is located within the City of San Diego's jurisdiction and is classified on the Rancho Bernardo Community Plan as a six-lane major arterial between I-15 southbound and northbound ramps, and as a four-lane major road between I-15 northbound ramps and eastern city limits. It is currently built to its community plan classifications with a posted speed limit of 40 mph. On-street parking is generally permitted west of Bernardo Oaks Drive and bike lanes are provided east of Bernardo Oaks Drive. Bus stops are provided in both directions west of Pomerado Road and in the westbound direction east of the Pomerado Road (Appendix J).

Segments Six through 16: Espola Road, east of Summerfield Lane, is located within the City's jurisdiction and is classified as a four-lane collector between Summerfield Lane and Titan Way, and as a specific arterial between Titan Way and Poway Road on the City's Transportation Master Element (City of Poway 2010). It is currently built as a four-lane roadway with a two-way left-turn lane (TWLTL) between Summerfield Lane and Martincoit Road; as a three-lane roadway (with two westbound lanes and one eastbound lane) between Martincoit Road and Old Coach Road; as a four-lane roadway with a TWLTL between Old Coach Road and Willow Ranch; and as a two-lane roadway with a TWLTL between Willow Ranch Road and Ezra Road. The posted speed limit is 45 mph. Bike lanes are provided in both directions. Bus stops are provided on the northbound and westbound direction. On-street parking is generally not permitted (Appendix J).

Segments 17 through 25: Pomerado Road, north of Bernardo Heights Parkway is located within the City of San Diego jurisdiction and is classified as a four-lane major arterial on the Rancho Bernardo Community Plan. Between Pomerado Court and Avenida La Valencia, the roadway is constructed with four lanes divided by a raised median. From Avenida La Valencia to Bernardo Heights Parkway, the four-lane roadway is divided by a TWLTL. South of Bernardo Heights Parkway, the roadway is within the City's jurisdiction and is classified as a major arterial between Pomerado Court and Ted Williams Parkway on the City's Transportation Master Element (City of Poway 2010). The roadway is four lanes and undivided between the sections of Bernardo Heights Parkway and Gateway Park Road, and then again between Monte Vista Road and Twin Peaks Road. From Gateway Park Road to Monte Vista Road, and Twin Peaks Road to Ted Williams Parkway, the roadway is separated by a raised median. The speed limit is 35 mph from Pomerado Court to Rios Road, 45 mph from Rios Road to Twin Peaks Parkway, and 40 mph from Twin Peaks Road to Ted Williams Parkway. Class II bike lanes are provided along Pomerado Road between Twin Peaks Road and Rancho Bernardo Road. Class III bike lanes are provided between Rancho Bernardo Road and Pomerado Court. Transit Routes 945 and 945A have stops along this road. On-street parking is generally prohibited on this section of the Pomerado Road (Appendix J).

Segments 26 and 27: Bernardo Center Drive, between Bajada Road and Bernardo Plaza Court, is located in the City of San Diego jurisdiction and is classified and currently built as a four-lane major arterial on the Rancho Bernardo Community Plan between Bajada Road and Bernardo Plaza Court. The posted speed limit is 40 mph north of Rancho Bernardo Road and 35 mph south of Rancho Bernardo Road. Transit Route 945 have stops along this road north of Rancho Bernardo Road. Class II bike lanes are provided intermittently on both sides of the roadway between Bajada Road and Rancho Bernardo Road. A Class III bike route is provided along this roadway south of Rancho Bernardo Road. On-street parking is generally prohibited (Appendix J).

Segment 28: Rios Road, between Pomerado Road and Summerfield Lane, is an unclassified roadway on the Rancho Bernardo Community Plan and the City's Transportation Master Element. It is currently built as a two-lane undivided road. The speed limit is 25 mph, and the classification is assumed as two-lane sub-collector (single-family) from City of San Diego Roadway Classification. On-street parking is allowed on both sides of the roadway (Appendix J).

Segment 29: Summerfield Lane, between Rios Road and Espola Road, is an unclassified roadway on the City's Transportation Master Element and is currently built as a two-lane undivided road. The speed limit is 25 mph and the classification is assumed as residential collector from the City's Circulation Element Roadway Classification. On-street parking is allowed on both sides of the roadway (Appendix J).

Segment 30: Avenida La Valencia, between Pomerado Road and Avenida Florencia, is an unclassified roadway on the City's Transportation Master Element. It is currently built as a two-lane undivided road. The speed limit is 25 mph, and the classification is assumed as residential collector from the City's Circulation Element Roadway Classification (Appendix J).

Segment 31: Avenida Florencia, between Avenida La Valencia and Espola Road, is an unclassified roadway on the City's Transportation Master Element. It is currently built as a two-lane undivided road, and the speed limit is 25 mph. A Class III bike route is provided along this road. The classification is assumed as Residential Collector from the City's Circulation Element Roadway Classification (Appendix J).

Segment 32: Del Norte, between Stone Canyon Road and Avenida La Valencia, is an unclassified roadway on the City's Transportation Master Element and is currently built as a two-lane undivided road. The speed limit is 25 mph, and the classification is assumed as residential collector from the City's Circulation Element Roadway Classification. A Class III bike route is provided along this road (Appendix J).

Segment 33 and 34: Stone Canyon Road, between Pomerado Road and Martincoit Road, is classified and currently built as a local collector on the City's Transportation Master Element. The speed limit is 35 mph. A Class III bike route is provided between Pomerado Road and Del Norte. On-street parking is generally prohibited (Appendix J).

Segment 35: Martincoit Road, between Stone Canyon Road and Espola Road, is classified and currently built as a local collector on the City's Transportation Master Element. The speed limit is 35 mph. Class II bike lanes are provided on both sides of the road. On-street parking is provided on both sides of the road for the most part north of Avenida La Valencia (Appendix J).

Segments 36 through 38: Twin Peaks Road is located in the City's jurisdiction. Between World Trade Center and Pomerado Road, it is classified as a six-lane prime arterial on the City's Transportation Master Element with a posted speed limit of 50 mph. Between Pomerado Road and Espola Road, it is classified as a four-lane major arterial on the City's Transportation Master Element with a posted speed limit of 45 mph. Between Pomerado Road and Deerwood Drive, Twin Peak Road is separated by a raised median. From Tierra Bonita Road to Espola Road, the roadway is divided by a striped median. On-street parking is prohibited on this section of Twin Peaks Road. Class II bike lanes are provided along this roadway between World Trade Center and Espola Road (Appendix J).

Segment 39: Valle Verde Road is classified as local collector based on the City's Transportation Master Element. Between Espola Road and St. Andrews Drive, it is currently built as a two-lane undivided road with TWLTL. The speed limit is 35 mph. Class II bike lanes are provided on this section of the road. On-street parking is provided on both sides of the street (Appendix J).

Segment 40: St. Andrews Drive is not classified on the City's Transportation Master Element. It is currently built as an undivided road with 25 mph posted speed limit. The classification is assumed as residential collector based on City's Transportation Master Element. On-street parking is permitted on both sides of the street (Appendix J).

Segments 41 and 42: Tam O'Shanter Drive is not classified on the City's Transportation Master Element. It is currently built as an undivided road with 25 mph posted speed limit. The classification is assumed as residential collector based on City's Transportation Master Element. On-street parking is permitted on both sides of the street (Appendix J).

Segment 43: Cloudcroft Drive is not classified on the City's Transportation Master Element. It is currently built as an undivided road with 25 mph posted speed limit. The classification is assumed as residential collector based on City's Transportation Master Element. On-street parking is permitted on both sides of the street (Appendix J).

Segment 44: Bernardo Heights Parkway, west of Pomerado Road, is located in the City of San Diego jurisdiction. It is currently built as a four-lane divided roadway with a speed limit of 45 mph. The classification is assumed as major arterial from the City of San Diego's roadway classification. Class II buffered bike lanes are provided along both sides of the roadway west of Pomerado Road (Appendix J).

Segment 45: Lake Poway Road, east of Espola Road, is classified as a two-Lane local collector on the City's Transportation Master Element. It is currently built as an undivided roadway with a posted speed limit of 30 mph. Class II bike lanes are provided on both sides of the roadway (Appendix J).

Segment 46: Titan Way, west of Espola Road, is classified as a two-lane local collector on the City's Transportation Master Element. It is currently built as an undivided roadway with a posted speed limit of 25 mph. On-street parking is generally prohibited (Appendix J).

According to Appendix J, The study area street segment operations are calculated to currently operate at LOS D or better with the exception of the following:

- Segment 1. Rancho Bernardo Road: W. Bernardo Drive to I-15 – LOS F

Table 4.15-4 indicates the jurisdiction, roadway classification, street capacity, ADT, LOS, and v/c ratio for the existing street segments in the study area.

Table 4.15-4. Existing Street Segment Operations

Street Segment	Jur.	Functional Classification	Capacity (LOS E) [a]	ADT [b]	LOS [c]	v/c [d]
Rancho Bernardo Rd						
1. W. Bernardo Dr to I-15 Southbound Ramps	Caltrans/ San Diego	4-Lane Major Arterial	40,000	49,856	F	1.247
2. I-15 Southbound Ramps to I-15 Northbound Ramp	Caltrans/ San Diego	6-Lane Major Arterial	50,000	41,565	D	0.832
3. I-15 Northbound Ramps to Bernardo Center Dr	Caltrans/ San Diego	6-Lane Major Arterial	50,000	36,202	C	0.725
4. Bernardo Center Dr to Pomerado Rd	San Diego	4-Lane Major Arterial	40,000	27,734	C	0.694
5. Pomerado Rd to Summerfield Ln	San Diego	4-Lane Major Arterial	40,000	20,490	B	0.513
Espola Rd						
6. Summerfield Ln to Avenida Florencia	Poway	4-Lane Collector w/ TWLTL	41,000	20,627	C	0.504
7. Avenida Florencia to Valle Verde Rd	Poway	4-Lane Collector w/ TWLTL	41,000	21,010	C	0.513
8. Valle Verde Rd to Martincoit Rd	Poway	4-Lane Collector w/ TWLTL	41,000	15,930	B	0.389
9. Martincoit Rd to Cloudcroft Dr	Poway	3-Lane Collector w/ TWLTL	31,000	14,507	C	0.468
10. Cloudcroft Dr to Old Coach Rd	Poway	3-Lane Collector w/ TWLTL	31,000	14,464	C	0.467
11. Old Coach Rd to Lake Poway Rd	Poway	3-Lane Collector w/ TWLTL	31,000	12,252	B	0.396
12. Lake Poway Rd to Titan Wy	Poway	4-Lane Collector w/ TWLTL	41,000	11,919	A	0.291
13. Titan Wy to Willow Ranch Rd	Poway	4-Lane Collector w/ TWLTL	41,000	16,156	B	0.395
14. Willow Ranch Rd to Del Poniente Rd	Poway	Specific Arterial	29,000	16,156	C	0.558
15. Del Poniente Rd to Twin Peaks Rd	Poway	Specific Arterial	29,000	16,156	C	0.558
16. Twin Peaks Rd to Ezra Ln	Poway	Specific Arterial	29,000	16,820	C	0.580
Pomerado Rd						
17. Pomerado Ct to Rancho Bernardo Rd	San Diego	4-Lane Major Arterial	40,000	28,923	C	0.724
18. Rancho Bernardo Rd to Rios Rd	San Diego	4-Lane Major Arterial	40,000	20,059	B	0.502

Table 4.15-4. Existing Street Segment Operations

Street Segment	Jur.	Functional Classification	Capacity (LOS E) [a]	ADT [b]	LOS [c]	v/c [d]
19. Rios Rd to Avenida La Valencia	San Diego	4-Lane Major Arterial	40,000	20,059	B	0.502
20. Avenida La Valencia to Stone Canyon Rd	San Diego	4-Lane Major Arterial	40,000	22,648	C	0.567
21. Stone Canyon Rd to Bernardo Heights Pkwy	San Diego	4-Lane Major Arterial	40,000	22,648	C	0.567
22. Bernardo Heights Pkwy to Gateway Park Rd	Poway	Major Arterial	50,000	27,585	C	0.552
23. Gateway Park Rd to Monte Vista Rd	Poway	Major Arterial	50,000	27,585	C	0.552
24. Monte Vista Rd to Twin Peaks Rd	Poway	Major Arterial	50,000	27,585	C	0.552
25. Twin Peaks Rd to Ted Williams Pkwy	Poway	Major Arterial	50,000	22,592	B	0.452
Bernardo Center Dr						
26. Bajada Rd to Rancho Bernardo Rd	San Diego	4-Lane Major Arterial	40,000	20,321	B	0.509
27. Rancho Bernardo Rd to Bernardo Plaza Ct	San Diego	4-Lane Major Arterial	40,000	21,890	C	0.548
Rios Rd						
28. Pomerado Rd to Summerfield Ln	San Diego	Sub-Collector (single-family)	3,500	2,213	D	0.633
Summerfield Ln						
29. Rios Rd to Rancho Bernardo Rd	Poway	2-Lane Residential Collector	3,800	2,213	C	0.583
Avenida La Valencia						
30. Pomerado Rd to Avenida Florencia	Poway	2-Lane Residential Collector	3,800	2,861	D	0.753
Avenida Florencia						
31. Rancho Bernardo Rd and Avenida La Valencia	Poway	2-Lane Residential Collector	3,800	666	A	0.176
Del Norte						
32. Avenida La Valencia to Stone Canyon Rd	Poway	2-Lane Residential Collector	3,800	408	A	0.108
Stone Canyon Rd						
33. Pomerado Rd to Avenida Florencia	Poway	2-Lane Local Collector	14,000	4,549	A	0.325
34. Avenida Florencia to Martincoit Rd	Poway	2-Lane Local Collector	14,000	3,011	A	0.216
Martincoit Rd						
35. Rancho Bernardo Rd to Stone Canyon Rd	Poway	2-Lane Collector w/o TWLTL	14,000	2,629	A	0.188

Table 4.15-4. Existing Street Segment Operations

Street Segment	Jur.	Functional Classification	Capacity (LOS E) [a]	ADT [b]	LOS [c]	v/c [d]
Twin Peaks Rd						
36. World Trade Center to Pomerado Rd	Poway	6-Lane Prime Arterial	63,000	35,358	B	0.562
37. Pomerado Rd to Deerwood Dr	Poway	4-Lane Major Arterial	50,000	29,349	C	0.587
38. Tierra Bonita Rd to Espola Rd	Poway	4-Lane Major Arterial	50,000	18,159	A	0.364
Valle Verde Rd						
39. Espola Rd to St Andrews Dr	Poway	2-Lane Local Collector	14,000	6,300	B	0.450
St. Andrews Dr						
40. Valle Verde Rd to Tam O'Shanter Dr	Poway	2-Lane Residential Collector	3,800	1,531	B	0.403
Tam O'Shanter Dr						
41. St Andrews Dr to Entrance 'A'	Poway	2-Lane Residential Collector	3,800	1,531	B	0.403
42. Entrance 'B' to Cloudcroft Dr	Poway	2-Lane Residential Collector	3,800	441	A	0.117
Cloudcroft Dr						
43. Tam O'Shanter Dr to Rancho Bernardo Dr	Poway	2-Lane Residential Collector	3,800	1,363	B	0.359
Bernardo Heights Pkwy						
44. Paseo Lucido to Pomerado Rd	San Diego	4-Lane Major Arterial	40,000	10,468	A	0.262
Lake Poway Rd						
45. East of Espola Rd	Poway	2-Lane Local Collector	14,000	925	A	0.067
Titan Way						
46. West of Espola Rd	Poway	2-Lane Collector w/o TWLTL	14,000	5,869	B	0.420

Source: Appendix J.
Notes: TWLTL = two-way left-turn lane.
[a] Capacities based on City of Poway and City of San Diego Roadway Classification and LOS table (See Appendix B in Appendix J).
[b] Average Daily Traffic Volumes
[c] Level of Service
[d] Volume to Capacity ratio

Ramp Meters

The following ramp meters are included in the study area and analyzed herein. All ramp meters are under the jurisdiction of Caltrans:

- I-15 Southbound: Westbound Rancho Bernardo Road
- I-15 Northbound: Westbound Rancho Bernardo Road

Table 4.15-5 summarizes the existing ramp meter operations at the Rancho Bernardo Road/I-15 northbound and southbound ramps. As seen in Table 4.15-5, there is an existing delay of is 1.7 minutes calculated for the I-15 southbound ramp during the AM peak hour. There is no delay calculated at the I-15 northbound ramp, as the peak demand is less than the most restrictive meter rate. It should be noted that the westbound to northbound ramp meter only operates during the PM peak hour and the westbound to southbound ramp meter only operates during the AM peak hour.

Table 4.15-5. Existing Caltrans Ramp Meter Analysis – Fixed Rate

Location	Peak Hour [a]	Existing						
		Volume		*Peak-Hour Demand (D) [b]*	*Meter Rate (R) [c]*	*Excess Demand (E) (veh)*	*Delay (min)*	*Queue (ft)[d]*
		SOV	*HOV*					
WB Rancho Bernardo Rd to I-15 Southbound (1 SOV + 1 HOV)	AM	506	56	506	492	14	1.7	350
WB Rancho Bernardo Rd to I-15 Northbound	PM	447	37	447	475	0	0	0

Source: Appendix J.
Notes: SOV = single occupancy vehicle; HOV = high occupancy vehicle.
Lane utilization factor accounted for in peak hour demand calculation.
(HOV percent based on observed PeMS data).

[a] Selected peak hour based on period when ramp meter is operating.
[b] Peak hour demand in vehicles/hour/lane for SOV and HOV lanes.
[c] Meter rate "R" is the most restrictive rate at which the ramp meter (signal) discharges traffic onto the freeway (obtained from Caltrans). The discharge rate varies depending on the mainline volumes.
[e] Queue calculated assuming vehicle length of 25 feet.

Freeway Mainline Segments

The following freeway mainline segments are included in the study area and analyzed herein. All freeway segments are under the jurisdiction of Caltrans:

Interstate 15

- Northbound; North of Rancho Bernardo Road (Mainline No. 1)
- Southbound; North of Rancho Bernardo Road (Mainline No. 1)
- Northbound; South of Rancho Bernardo Road (Mainline No. 2)
- Southbound; South of Rancho Bernardo Road (Mainline No. 2)

Rancho Bernardo Road is a six-lane major arterial between I-15 southbound and northbound ramps, and is a four-lane major road between I-15 northbound ramps and eastern city limits. As shown in Table 4.15-6, the study area freeway mainline segments of I-15 are calculated to currently operate at LOS D or better under existing conditions except for the following:

- Mainline No.1. I-15 north of Rancho Bernardo Road
  - Segment One – Northbound – LOS E (PM peak hour)
  - Segment Two – Southbound – LOS F (AM peak hour)
- Mainline No.2. I-15 south of Rancho Bernardo Road
  - Segment Four – Southbound – LOS E (AM peak hour)

Table 4.15-6. Existing Freeway Mainline Operations

Freeway Segment	Dir	# of Lanes [a]	Volume [b]	%K [c]		%D [c]		Truck Factor	Peak-Hour Volume [c]		v/c [d]		Density [e]		LOS [f]	
				AM	*PM*	*AM*	*PM*		*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*
Interstate 15																
1. North of Rancho Bernardo Rd	NB	5M	216,000	7.28%	7.31%	35.57%	54.25%	7.1%	5,594	8,566	0.590	0.903	20.0	36.3	C	E
	SB	5M		7.28%	7.31%	64.43%	45.75%	7.1%	10,132	7,224	1.067	0.761	> 45.0	27.5	F	D
2. South of Rancho Bernardo Rd	NB	5M	212,000	7.46%	7.69%	41.82%	50.85%	7.1%	6,614	8,290	0.697	0.873	24.4	34.1	C	D
	SB	5M		7.46%	7.69%	58.18%	49.15%	7.1%	9,202	8,013	0.969	0.844	41.9	32.2	E	D

Source: Appendix J.
Notes: NB = northbound; SB = southbound; M = mainline; A = auxiliary.
Truck factor sourced to most recent Caltrans Traffic Census Program Peak Hour Volume Data (2016).

[a] Lane geometry taken from PeMS lane configurations at corresponding postmile.
[b] Existing ADT volumes from most recent Caltrans Traffic Census Program (2017, as cited in Appendix J).
[c] Peak hour volumes calculated from K and D factors provided in most recent Caltrans Traffic Census Program Peak Hour Volume Data (2017, as cited in Appendix J).
[d] v/c = (peak hour volume/hourly capacity)
[e] Density measures passenger cars per mile per lane. Density = Flow Rate (passenger-cars/hour/lane) ÷ Speed (average passenger-car speed in mph).
[f] LOS = Level of Service

LOS	Density Range (pc/mi/ln)
A	0 – 11
B	> 11 – 18
C	> 18 – 26
D	> 26 – 35
E	> 35 – 45
F	> 45

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Cut-Through Traffic

A review of existing traffic volumes and travel patterns indicates that certain residential roadways function as cut-through routes between the Point A: Espola Road/Martincoit Road and Point B: Pomerado Road/Stone Canyon Road intersections. The roadways affected by cut-through traffic are Martincoit Road, Stone Canyon Road, Avenida Florencia and Avenida La Valencia, and Summerfield Lane and Rios Road. Four routes exist within this area are as follows:

- **Route 1 (primary):** Espola Road – Pomerado Road
- **Route 2 (cut-through):** Espola Road – Martincoit Road – Stone Canyon Road – Pomerado Road
- **Route 3 (cut-through):** Espola Road – Avenida Florencia – Avenida La Valencia – Pomerado Road
- **Route 4 (cut-through):** Espola Road – Summerfield Lane – Rios Road – Pomerado Road

Route 1 is the primary route between the Point A: Espola Road/Martincoit Road and Point B: Pomerado Road/Stone Canyon Road intersections; it is approximately 2.5 miles and consists of five traffic signals, excluding the Pomerado Road/Stone Canyon Road signal. Both roadways are major arterials designed to carry the majority or peak commute traffic. Green time is mostly allocated to the through traffic on Espola Road and Pomerado Road. The posted speeds on Espola Road and Pomerado Road range between 35 mph and 45 mph. During non-peak periods, this route takes approximately four minutes. During morning and evening peak commute periods, travel times can increase up to 10 minutes.

Route 2 is a potential cut-through route that is approximately 2.1 miles and consists of three stop-controlled intersections. Two are all-way-stop-controlled intersections that stop the flow of through traffic along this route. One is a minor street stop sign that stops the eastbound to northbound trips from Stone Canyon Road to Martincoit Road. The posted speeds on Martincoit Road and Stone Canyon Road are 25 mph. The roadways are narrow, and windy, with stop signs along the way. Painted Rock Elementary is located along this route, which during peak school periods enforces slower speeds through school-implemented traffic control measures (e.g., student flaggers, supervising staff). During non-peak periods, this route takes approximately five minutes. During morning and evening peak commute periods, travel times can increase up to seven minutes.

Route 3 is a potential cut-through route that is approximately 1.9 miles and consists of one traffic signal and four all-way-stop-controlled intersections. The posted speeds on Avenida Florencia and Avenida La Valencia are 25 mph. The roadways are narrow, and windy, with stop signs along the way that have likely been installed as a traffic-calming measure for the neighborhood. A traffic signal exists at the Avenida La Valencia/Pomerado Road intersection. During non-peak and morning and evening peak commute periods, this route takes approximately five minutes.

Route 4 is a potential cut-through route that is approximately 2.2 miles and consists of four traffic signals and one all-way-stop-controlled intersection. The posted speeds on Summerfield Lane and Rios Road are 25 mph. Speed humps have been installed along this route as a traffic-calming measure. During non-peak and morning and evening peak commute periods, this route takes approximately six minutes.

Cut-through travel patterns were estimated using data science analytics. This data source was StreetLight Data, which uses data obtained from GPS devices such as cell phones and connected vehicles to help predict travel patterns and behaviors. An Origin-Destination analysis was also completed using the travel behavior of existing trips starting at Point A: Espola Road/Martincoit Road intersection destined to Point B: Pomerado Road/Stone Canyon Road intersection. The data analytics yielded the percentage of traffic initiating from the origination intersection to the destination intersection. The data used was collected for one year on weekdays over a 24-hour period, Tuesdays through Thursdays.

Based on the above travel time information, as well as the StreetLight Data and Origin-Destination study, it was concluded that a portion of existing traffic destined from Point A: Espola Road/Martincoit Road intersection to Point B: Pomerado Road/Stone Canyon Road intersection would essentially cut-through the residential communities noted as Routes Two, Three, and Four.

Based on the vehicular volumes from StreetLight Data, percentages of the existing traffic volumes between these destination intersections were identified as follows:

Route Number	Route	Traffic Percentage (Primary Route)	Traffic Percentage (Cut-Through)
Route 1 (primary)	Espola Rd – Pomerado Rd	92%	N/A
Route 2 (cut-through)	Espola Rd – Martincoit Rd – Stone Canyon Rd – Pomerado Rd		3%
Route 3 (cut-through)	Espola Rd – Avenida Florencia – Avenida La Valencia – Pomerado Rd		4%
Route 4 (cut-through)	Espola Rd – Summerfield Lane – Rios Rd – Pomerado Rd		1%
Total Trips from Point A to Point B		**92%**	**8%**

Source: Appendix J
Notes: September 1, 2018 – August 31, 2018
Average Weekday: Tuesday – Thursday
Approximate Device Count: 1,000
Approximate Trip Count: 6,000

As a result of this observation, it was concluded that traffic associated with the proposed project would also utilize these alternative routes between the origin and destination intersections. Further details on these distribution patterns is provided in Section 7.2 of Appendix J.

Pedestrian

Pedestrian circulation throughout the study area is mainly provided by pathways and crossings. Few sidewalks are provided in the study area given the semi-rural character of the community. A pedestrian network inventory was conducted along street segments, which included documenting missing sidewalks, pedestrian barriers, and pedestrian pathways within the proposed project's sphere of influence. Existing AM peak hour (7 a.m. to 9 a.m.) and PM peak hour (4 p.m. to 6 p.m.) pedestrian crossing volumes were conducted at the same time the vehicular peak-hour traffic counts were conducted when schools were in session. Pedestrian crossing volumes were collected for each leg of each intersection where a crosswalk are provided in Appendix J. In addition, midday (1:45 p.m. to 3:45 p.m.) pedestrian crossing were conducted at the intersections located within the one-mile school buffer zones. The existing pedestrian network is illustrated in Figure 4.15-2.

Existing Pedestrian Demand

Existing pedestrian demand was collected at every intersection in the study area during the commuter AM/PM peak hours, as well as the midday school peak hour. The average combined AM, PM, and midday pedestrian demand was calculated and every intersection was categorized as lower-than-average demand, average demand, or higher-than-

average demand. This represents a measure of pedestrian demand in close proximity to the project site. Figure 4.15-3 shows the existing pedestrian demand in and around the study area for each of the peak hours.

The following intersections were observed as "high" pedestrian activity locations within the area:

- Intersection 13. Espola Road/Eden Grove Road/Titan Way (AM and midday peak hours)

Espola Road at Titan Way is the main access for Poway High School. Thus, the existence of high pedestrian demand at this intersection would be expected. Pedestrian conditions at the other intersections located near school access points experience medium levels of pedestrian activity.

Bicycle

Bicycle mobility has become a prominent part of roadway networks today and will continue to evolve as a more viable option to auto use in many parts of the San Diego region. Improving bicycle connections in and around the project site is an important focus area for this study. The City of San Diego Bicycle Master Plan (2013, as cited in Appendix J), the City of San Diego General Plan – Mobility Element (2008, as cited in Appendix J), the SANDAG San Diego Regional Bike Plan (2010, as cited in Appendix J), and the City of Poway Transportation Master Element (City of Poway 2010) establish guidelines for a safe, comprehensive local and regional bikeway network. The existing bicycle network in the project study area is illustrated in Figure 4.15-4.

There are four different bicycle classifications—Class I, Class II, Class III, and Class IV—defined as follows (Appendix J):

- **Class I** – Bike Path: Bike paths, also termed shared-use or multi-use paths, are paved right-of-ways for exclusive use by bicyclists, pedestrians, and those using non-motorized modes of travel. They are physically separated from vehicular traffic and can be constructed in roadway right-of-ways or as exclusive right-of-ways. Bike paths provide critical connections in the city where roadways are absent or are not conducive to bicycle travel.
- **Class II** – Bike Lane: Bike lanes are defined by pavement striping and signage used to allocate a portion of a roadway for exclusive or preferential bicycle travel. Bike lanes are one-way facilities on either side of a roadway. Whenever possible, bike lanes should be enhanced with treatments that improve safety and connectivity by addressing site-specific issues, such as additional warning or wayfinding signage.
- **Class III** – Bike Route: Bike routes provide shared use with motor vehicle traffic within the same travel lane. Designated by signs, Bike Routes provide continuity to other bike facilities or designate preferred routes through corridors with high demand. Whenever possible, bike routes should be enhanced with treatments that improve safety and connectivity, such as the use of "sharrows" or shared lane markings to delineate that the road is a shared-use facility.
- **Class IV** – Cycle Track: A Cycle Track is a hybrid type of bicycle facility that combines the experience of a separated path with the on-street infrastructure of a conventional bike lane. Cycle tracks are bikeways located in roadway right-of-ways, but are separated from vehicle lanes by physical barriers or buffers. Cycle tracks provide for one-way bicycle travel in each direction adjacent to vehicular travel lanes and are exclusively for bicycle use. Cycle tracks are not recognized by Caltrans Highway Design Manual as a bikeway facility. To provide bicyclists with the option of riding outside of the cycle track to position themselves for a left or right turn, parallel bikeways should be added adjacent to cycle track facilities whenever feasible.

To analyze existing conditions, a bikeshed analysis was performed on the study area as well as surrounding areas. As analyzed in Appendix J, the project site, in general, has good connectivity to the surrounding community. Existing AM peak hour (7 a.m. to 9 a.m.) and PM peak hour (4 p.m. to 6 p.m.) bicycle volumes were conducted at the same time the

vehicular peak-hour traffic counts were conducted when schools were in session. In addition, midday (1:45 p.m. to 3:45 p.m.) bicycle volumes were conducted at the intersections located within the one-mile school buffer zones.

A detailed bicycle network inventory was conducted for the surrounding study area. Table 4.15-7 summarizes the existing bicycle classifications found on the study street segments. As shown in Table 4.15-7, all roadways provide their classified bicycle facilities with the exception of a few locations, as shown in bold typeface.

Table 4.15-7. Bicycle Mobility

Street Segment	Existing Classification	Future Classification
Rancho Bernardo Rd		
1. W. Bernardo Dr to I-15 Southbound Ramps	Class II	Class II
2. I-15 Southbound Ramps to I-15 Northbound Ramp	Class III	**Class II**
3. I-15 Northbound Ramps to Bernardo Center Dr	Class III (Bike Route w/ Sharrow)	**Class II**
4. Bernardo Center Dr to Pomerado Rd	Class III (Bike Route w/ Sharrow)/ Class II	**Class II**
5. Pomerado Rd to Summerfield Ln	Class II	Class II
Espola Rd		
6. Summerfield Ln to Avenida Florencia	Class II	Class II
7. Avenida Florencia to Valle Verde Rd	Class II	Class II
8. Valle Verde Rd to Martincoit Rd	Class II	Class II
9. Martincoit Rd to Cloudcroft Dr	Class II	Class II
10. Cloudcroft Dr to Old Coach Rd	Class II	Class II
11. Old Coach Rd to Lake Poway Rd	Class II	Class II
12. Lake Poway Rd to Titan Wy	Class II	Class II
13. Titan Wy to Willow Ranch Rd	Class II	Class II
14. Willow Ranch Rd to Del Poniente Rd	Class II	Class II
15. Del Poniente Rd to Twin Peaks Rd	Class II	Class II
16. Twin Peaks Rd to Ezra Ln	Class II	Class II
Pomerado Rd		
17. Pomerado Ct to Rancho Bernardo Rd	Class III	Class II
18. Rancho Bernardo Rd to Rios Rd	Class II	Class II
19. Rios Rd to Avenida La Valencia	Class II	Class II
20. Avenida La Valencia to Stone Canyon Rd	Class II	Class II
21. Stone Canyon Rd to Bernardo Heights Pkwy	Class II	Class II
22. Bernardo Heights Pkwy to Gateway Park Rd	Class II	Class II
23. Gateway Park Rd to Monte Vista Rd	Class II	Class II
24. Monte Vista Rd to Twin Peaks Rd	Class II	Class II
25. Twin Peaks Rd to Ted Williams Pkwy	Class II	Class II
Bernardo Center Dr		
26. Bajada Rd to Rancho Bernardo Rd	Class III	Class III
27. Rancho Bernardo Rd to Bernardo Plaza Ct	Class III	Class III

Table 4.15-7. Bicycle Mobility

Street Segment	Existing Classification	Future Classification
Rios Rd		
28. Pomerado Rd to Summerfield Ln	None	None
Summerfield Ln		
29. Rios Rd to Rancho Bernardo Rd	None	None
Avenida La Valencia		
30. Pomerado Rd to Avenida Florencia	None	None
Avenida Florencia		
31. Rancho Bernardo Rd and Avenida La Valencia	Class III	Class III
Del Norte		
32. Avenida La Valencia to Stone Canyon Rd	Class III	Class III
Stone Canyon Rd		
33. Pomerado Rd to Avenida Florencia	Class III	Class III
34. Avenida Florencia to Martincoit Rd	None	**Class III**
Martincoit Rd		
35. Rancho Bernardo Rd to Stone Canyon Rd	None	**Class III**
Twin Peaks Rd		
36. World Trade Center to Pomerado Rd	Class II	Class II
37. Pomerado Rd to Deerwood Dr	Class II	Class II
38. Tierra Bonita Rd to Espola Rd	Class II	Class II
Valle Verde Rd		
39. Espola Rd to St Andrews Dr	Class II	Class II
St Andrews Dr		
40. Valle Verde Rd to Tam O'Shanter Dr	None	None
Tam O'Shanter Dr		
41. St Andrews Dr to Entrance 'A'	None	None
42. Entrance 'B' to Cloudcroft Dr	None	None
Cloudcroft Dr		
43. Tam O'Shanter Dr to Rancho Bernardo Dr	None	None
Bernardo Heights Pkwy		
44. Paseo Lucido to Pomerado Rd	Class II	Class II
Lake Poway Rd		
45. East of Espola Rd	Class II	Class II
Titan Way		
46. West of Espola Rd	None	None

Source: Appendix J
Note: Improved conditions in the future shown in bold typeface.

Existing Bicycle Demand

Existing bicycle demand was collected at every intersection in the study area during the commuter AM/PM peak hours, as well as the midday school peak hour. The average combined AM, PM, and midday bicycle demand was calculated and every intersection was categorized as lower-than-average demand, average demand, or higher-than-average demand.

Figure 4.15-5, Existing Bicycle Demand, shows the existing bicycle activity in and around the study area for AM/PM peak hour. The following intersection was observed as a high bicycle activity location within the area:

- Intersection 13. Espola Road/Valle Verde Road (school midday peak hour)

Transit

Transit Conditions

Bus transportation is the main mode of transportation served around the proposed project area. The Rancho Bernardo Transit Center includes San Diego Metropolitan Transit System (MTS) Bus Routes 235, 290, and 945, which provide service to and from Downtown San Diego, Miramar College, City College, and Old Poway. Bus transit in the study area is categorized using the following classifications (Appendix J):

- MTS Bus – The main type of bus service provided by MTS in the San Diego region. MTS Bus provides service at different headways depending on the demand and location. There are currently two MTS Bus routes—20, 945/945A—that serve the proposed project area.
- MTS Express – This high-frequency bus service has 15-minute headways during peak and non-peak hours. No MTS Express routes are provided in the proposed project area.
- MTS Rapid – This high-frequency bus service has 15-minute headways during peak and non-peak hours and provides riders with improved wait time and enhanced comfort and convenience. Route 235 is an MTS Rapid route.
- MTS Rapid Express/Premium – This route operates along the I-15 corridor during weekdays, and provides frequent trips south in the morning (5 a.m. to 9 a.m.) and north in the evening (3 p.m. to 7 p.m.). Express routes have 15-minute headways during peak and non-peak hours and usually take up to 45 minutes to an hour to get from departure to the final destination.

Transit Centers

Transit centers (or hubs) are the interchange of various transit routes and travel modes. The following transit center is in the study area:

- Rancho Bernardo Transit Center – Mainly serves MTS networks. Routes include MTS route 235, 290, and 945.

Transit Routes

Route 20 runs from Rancho Bernardo Transit Center to downtown. There are eight stops along this route with destinations to Miramar College, City College, and Fashion Valley. Route 20 currently operates the following schedule: Monday through Fridays between 5:15 a.m. and 10:17 p.m. when departing from Rancho Bernardo Transit Center, and between 4:57 a.m. and 9:22 p.m. when departing from City College Transit Center; Saturdays

between 6:12 a.m. and 9:17 p.m. when departing from Miramar College Transit Center, and between 5:41 a.m. and 8:49 p.m. when departing from City College Transit Center; Sundays between6:13 a.m. and 8:18 p.m. when departing from Rancho Bernardo Transit Center, and between 5:41 a.m. and 8:49 p.m. when departing from City College Transit Center. Route 20 operates on observed holidays with a Saturday or Sunday schedule. Weekdays and Saturday schedules include 30-minute headways. Service rate for Sunday is one hour.

Route 235 runs from Escondido to Downtown San Diego. There are 10 stops along this route with destinations to Miramar College and City College. Route 235 currently operates the following schedule: Monday through Fridays between 4:58 a.m. and 11:48 p.m. when departing from Escondido Transit Center, and between 4:42 a.m. and 11:51 p.m. when departing from Downtown San Diego with a service time of 15 minutes during peak hours. Weekend schedule runs from 5:13 a.m. through 11:20 p.m. departing from Escondido Transit Center, and from 4:42 a.m. to 11:21 p.m. departing from Downtown San Diego with service time of 30 minutes during peak hours. Route 235 operates on observed holidays with a weekend schedule.

Route 290 operates between Rancho Bernardo Transit Station and Downtown San Diego. It is an MTS Rapid Express route that uses the I-15 with the purpose of moving travelers directly between Rancho Bernardo Transit Center and Downtown San Diego. There is only one stop at Sabre Spring/Peñasquitos transit station between Rancho Bernardo Transit Center and Downtown San Diego. Total travel time between the departure and destination is typically 45 minutes to one hour. Route 235 currently operates on weekdays and only during peak hours. Operation runs from 5 a.m. to 9:03 a.m. departing from Escondido Transit Center and from 2:57 p.m. to 6:57 p.m. departing from Downtown San Diego. Frequency of bus arrivals is 15 minutes for most of the operation period.

Route 945 runs from Rancho Bernardo Transit Station to Old Poway. It operates weekdays starting from 5:52 a.m. to 8:22 p.m. when departing from Rancho Bernardo, and from 5:09 a.m. to 7:35 p.m. when departing from Old Poway. Total travel time between the two ends of the route is 45 minutes or less. Service time is 30 minute during peak hours. Saturday operation runs from 6:42 a.m. to 7:34 p.m. departing from Rancho Bernardo Transit Center, and from 6:41 a.m. to 6:29 p.m. departing from Old Poway. Route 945 operates on observed holidays with a Saturday schedule. Route 945 does not operate on Sundays.

Route 945A runs on a loop route in counterclockwise direction passing through Espola Road, Pomerado Road, Poway Road, Midland Road, and Twin Peaks Road. Route 945A runs on weekdays from 6:36 a.m. to 8:25 a.m. when departing from Pomerado Road/Rancho Bernardo Road, and from 2:35 p.m. to 4:34 p.m. when departing from Midland Road/Poway Road. This route does not run on weekends or observed holidays.

4.15.2 Relevant Plans, Policies, and Ordinances

Federal

Highway Capacity Manual

The 2010 Highway Capacity Manual, prepared by the federal Transportation Research Board, is the result of a collaborative multi-agency effort between the Transportation Research Board, Federal Highway Administration, and American Association of State Highway and Transportation Officials. The 2010 Highway Capacity Manual contains concepts, guidelines, and computational procedures for computing the capacity and quality of service of various highway facilities, including freeways, signalized and unsignalized intersections, rural highways, and the effects of transit, pedestrian, and bicycles on the performance of these systems.

State

California Department of Transportation

Caltrans is the public agency responsible for designing, building, operating, and maintaining California's state highway system, which consists of freeways, highways, expressways, toll roads, and the right-of-way area between the roadways and property lines. Caltrans is also responsible for permitting and regulating the use of state roadways. Caltrans' construction practices require temporary traffic control planning during any activities that interfere with the normal function of a roadway.

California Environmental Quality Act

CEQA (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

Senate Bill 375

SB 375 targets regional greenhouse gas (GHG) emissions reductions from passenger vehicles and light-duty trucks through changes in land use and transportation development patterns. Integrating transportation and residential land use activity is one of the most impactful strategies for reducing GHG emissions, as well as other forms of air pollution. Governmental actions supporting the location, variety and availability of housing are critical to implementing GHG emissions-reduction policies. This can support the integration of transportation and housing development, offering more varied and efficient consumer choices. Infill development patterns that emphasizes proximity and connectivity to public transit, walkable areas, employment and service centers, and amenities can increase the effectiveness of these relationships.

Senate Bill 743

On September 27, 2013, Governor Jerry Brown signed SB 743 into law, starting a process that is expected to change the way transportation impact analysis is conducted under CEQA. Within the state's CEQA Guidelines, these changes will include elimination of auto delay, LOS, and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts.

SB 743 created a process to change the way projects analyze transportation impacts pursuant to CEQA. Currently, environmental review of transportation impacts focuses on the delay that vehicles experience at intersections and on roadway segments. That delay is often measured using a metric known as LOS. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of GHG emissions, creation of multi-modal networks and promotion of a mix of land uses. SB 743 requires OPR to amend the CEQA Guidelines to provide an alternative to LOS for evaluating transportation impacts. The alternative criteria must promote the reduction of GHG emissions, the development of multi-modal transportation networks, and a diversity of land uses (OPR 2017). The Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA (Draft Guidelines) (OPR 2017) provided recommendations for updating the state's CEQA Guidelines in response to SB 743 and contained recommendations for VMT analysis methodology in an accompanying Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory). The Draft Guidelines, including the Technical Advisory, recommended use of automobile VMT per capita as the preferred CEQA transportation metric, along with the elimination of auto delay/LOS for CEQA purposes statewide.

VMT is defined as a measurement of miles traveled by vehicles within a specified region for a specified time period and is a measure of network use or efficiency. There are multiple ways to express VMT, although generally VMT are calculated by multiplying all vehicle trips generated by a project by their associated trip lengths, or by multiplying traffic volumes on roadway links by the associated trip distance of each link. VMT is often estimated for a typical weekday.

According to the legislative intent contained in SB 743, these changes to current practice were necessary to more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHG emissions.

Assembly Bill 1358

The Complete Streets Act of 2008 (AB 1358) requires, beginning January 1, 2011, cities and counties, upon any substantive revision to their circulation elements, to plan for a balanced multi-modal transportation network that meets the needs of all users of streets, roads, and highways, including motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation.

Local

2050 Regional Transportation Plan and Sustainable Communities Strategy

The 2050 Regional Transportation Plan (2050 RTP/SCS) provides a plan for investing an estimated $214 billion in local, state, and federal transportation funds expected to come to the region over the next 40 years. The 2050 RTP/SCS is the blueprint for a regional transportation system that further enhances quality of life, promotes sustainability, and offers more mobility options for people and goods. The plan outlines projects for transit, rail and bus service, express or managed lanes, highways, local streets, bicycling, and walking to provide an integrated, multi-modal transportation system by mid-century. Pursuant to SB 375, the 2050 RTP/SCS also includes the Sustainable Communities Strategy (SCS), which details how the region will reduce GHG emissions to state-mandated levels over time. The 2050 RTP/SCS is a component of San Diego Forward: The Regional Plan (Regional Plan), which was adopted by the San Diego Association of Governments (SANDAG) Board of Directors on October 9, 2015 (SANDAG 2015).

Regional Transportation Plans (RTPs) are developed to provide a clear vision of the regional transportation goals, objectives, and strategies. In addition, RTPs must reflect SB 375, which targets regional GHG emissions reductions from passenger vehicles and light-duty trucks through changes in land use and transportation development patterns.

SANDAG is the responsible Regional Transportation Planning Agency in Southern California, and is therefore required to adopt and submit an updated RTP to the California Transportation Commission and Caltrans every four or five years, depending on air quality attainment within the region. SANDAG, in partnership with local governments, is required by federal law to create an RTP that determines the needs of the transportation system and prioritizes proposed transportation projects.

Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is a multi-billion dollar, five-year program of major transportation projects funded by federal, state, TransNet local sales tax, and other local and private funding. The RTIP is a prioritized program designed to implement the region's overall strategy for providing mobility and improving the efficiency and safety of the transportation system, while reducing transportation-related air pollution in support

of the efforts to attain federal and state air quality standards for the region. The RTIP also incrementally implements the 2050 RTP/SCS, which is the long-range transportation plan for the San Diego region. The RTIP covers multiple fiscal years and is amended frequently to reflect near-term priorities and expenditures.

Congestion Management Program

State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a Congestion Management Program, which is a part of SANDAG's RTP. The purpose of the Congestion Management Program is to monitor the performance of the region's transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. SANDAG provided regular updates for the State Congestion Management Program from 1991 through 2008. In October 2009, the San Diego region elected to be exempt from the State Congestion Management Program and since this decision, SANDAG has been abiding by Title 23, Section 450.320 of the Code of Federal Regulations to ensure the region's continued compliance with the federal congestion management process. The Regional Plan, the region's long-range transportation plan and SCS, meets the requirements of Title 23, Section 450.320 of the Code of Federal Regulations by incorporating the following federal congestion management process: performance monitoring and measurement of the regional transportation system, multi-modal alternatives and non-single occupancy vehicle analysis, land use impact analysis, the provision of congestion management tools, and integration with the RTIP process.

4.15.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to traffic and circulation are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to traffic and circulation would occur if the project would:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance or the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
4. Substantially increase hazards due to a design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment).
5. Result in inadequate emergency access.
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

City of Poway Significance Criteria

A project is considered to have a significant impact if the new project traffic would decrease the operations of surrounding roadways by a defined threshold, which are shown in Table 4.15-8 for freeway segments, roadway segments, intersections, and ramp meters and are based on published SANTEC/ITE guidelines. If a project exceeds

the thresholds in Table 4.15-8, then the project may be considered to have a significant impact. A feasible mitigation measure would need to be identified to return the impact within the thresholds (pre-project plus allowable increase) or the impact would be considered significant and unmitigated.

If a project's traffic causes the location to degrade from an acceptable LOS D or better to LOS E or LOS F, or if it exceeds the allowable thresholds as shown in Table 4.15-8 for currently LOS E or F operating locations, a significant impact occurs.

Table 4.15-8. City of Poway Traffic Impact Significance Thresholds

Level of Service with Project [a]	Allowable Increase Due to Project Impacts[b]					
	Freeways		*Roadway Segments*		*Intersections*	*Ramp Metering*[c]
	v/c	*Speed (mph)*	*v/cc*	*Speed (mph)*	*Delay (seconds)*	*Delay (minutes)*
E and F	0.01	1.0	0.02	1.0	2.0	2.0

Source: SANTEC/ITE, as cited in Appendix J.
Notes: v/c = volume to capacity ratio; LOS = level of service.
Speed = Arterial speed measured in miles per hour
Delay = Average stopped delay per vehicle measured in seconds for intersections.

[a] All level of service measurements are based upon HCM procedures for peak-hour conditions. However, v/c ratios for Roadway Segments may be estimated on an ADT/24-hour traffic volume basis (using Table 2 or a similar LOS chart for each jurisdiction). The acceptable LOS for freeways, roadways, and intersections is generally "D".

[b] If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are deemed to be significant. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigations (within the Traffic Impact Study [TIS] report) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note a above), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating significant impact changes.

[c] The allowable increase in delay at a ramp meter with more than a 15-minute delay and freeway LOS E or F is two minutes.

Under Existing and Near-Term conditions, impacts are considered to be direct. Impacts in the Horizon Year 2035 condition are considered to be cumulative, since the impacts would occur with a reduction in reserve capacity due to traffic generated by future growth in the City with the buildout of General Plan land uses.

City of San Diego Significance Criteria

According to the City of San Diego's Significance Determination Thresholds dated January 2011, a project is considered to have a significant impact if project traffic would decrease the operations of surrounding roadways by a defined threshold. For projects deemed complete on or after January 1, 2007, the City of San Diego-defined thresholds are shown in Table 4.15-9.

The impact is designated either a "direct" or "cumulative" impact. According to the City of San Diego's Significance Determination Thresholds (as quoted in Appendix J):

> *"Direct traffic impacts"* are those projected to occur at the time a proposed development becomes operational, including other developments not presently operational but which are anticipated to be operational at that time (opening day).

"Cumulative traffic impacts" are those projected to occur at some point after a proposed development becomes operational, such as during subsequent phases of a project and when additional proposed developments in the area become operational (short-term cumulative) or when affected community plan area reaches full planned buildout (long-term cumulative).

It is possible that a project's opening day (direct) impacts may be reduced in the long term, as future projects develop and provide additional roadway improvements (for instance, through implementation of traffic phasing plans). In such a case, the project may have direct impacts but not contribute considerably to a cumulative impact.

For intersections and roadway segments affected by a project, level of service (LOS) D or better is considered acceptable under both direct and cumulative conditions.

If a project exceeds the thresholds in Table 4.15-9, then it is considered to have a significant direct or cumulative project impact. A significant impact can also occur if a project causes the LOS to degrade from D to E, even if the allowable increases in Table 4.15-9 are not exceeded. A feasible mitigation measure would be required to return the impact within the City of San Diego's thresholds, or the impact would be significant and unmitigated.

Table 4.15-9. City of San Diego Traffic Impact Significant Thresholds

Level of Service with Project [b]	Allowable Increase Due to Project Impacts [a]					
	Freeways		*Roadway Segments*		*Intersections*	*Ramp Metering* [c]
	v/c	*Speed (mph)*	*v/c*	*Speed (mph)*	*Delay (sec.)*	*Delay (min.)*
E	0.010	1.0	0.02	1.0	2.0	2.0
F	0.005	0.5	0.01	0.5	1.0	1.0

Source: Appendix J.
Notes: v/c = volume to capacity ratio; LOS = level of service.
Speed = Arterial speed measured in miles per hour
Delay = Average stopped delay per vehicle measured in seconds for intersections.

[a] If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/and maintain the traffic facility at an acceptable LOS.

[b] All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, v/c ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped locations). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

[c] The allowable increase in delay at a ramp meter with more than a 15-minute delay and freeway LOS E is two minutes. The allowable increase in delay at a ramp meter with more than a 15-minute delay and freeway LOS F is one minute.

Caltrans Significance Criteria

The SANTEC guidelines are used for Caltrans freeway segments and ramp meters, although Caltrans accepts LOS D operations for urban locations; the City is considered an urban location for purposes of Caltrans' facilities analysis. Caltrans utilizes ramp meters to control the volume of traffic entering the freeway. Similar to intersection analysis, the analysis is based on the delay per vehicle at the ramp meter. However, the delay per vehicle is measured in minutes. Ramp metering delay represents how long the peak hour (ramp metering) would need to be extended in order to accommodate the excess vehicles. A delay above 15 minutes at a ramp is considered unacceptable.

VMT Guidelines

This section provides an introduction to evaluating potential transportation impacts of a project as proposed by OPR to implement SB 743. OPR proposes that metrics based on VMT be used to evaluate a project's transportation effects, and that projects in proximity to transit are presumed to result in less-than-significant impacts. OPR also suggests thresholds of significance and technical methodologies to calculate VMT. It bears noting that while the VMT analysis is included for informational purposes, it is not legally required to be included in CEQA documents publically released before July 1, 2020 (see CEQA Guidelines Section 15007[c]).

VMT Background and Induced Travel

VMT is defined as a measurement of miles traveled by vehicles within a specified region and for a specified time period. VMT is a measure of the use and efficiency of the transportation network. VMT's are calculated based on individual vehicle trips generated and their associated trip lengths. VMT accounts for two-way (round trip) travel and is often estimated for a typical weekday for the purposes of measuring transportation impacts.

Induced travel occurs where roadway capacity is expanded in an area of present or projected future congestion. The effect typically manifests over several years. Lower travel times make the modified facility more attractive to travelers, resulting in potential trip-making changes. Each of these effects has implications for the total amount of vehicle travel.

- **Longer Trips.** The ability to travel a long distance in a shorter time increases the attractiveness of destinations that are farther away, increasing trip length and vehicle travel.
- **Changes in Mode Choice.** When transportation investments are devoted to reducing automobile travel time, travelers tend to shift toward automobile use from other modes, which increases vehicle travel.
- **Route Changes.** Faster travel times on a route attract more drivers to that route from other routes, which can increase or decrease vehicle travel depending on whether it shortens or lengthens trips.
- **Newly Generated Trips.** Increasing travel speeds can induce additional trips, which increases vehicle travel. For example, an individual who previously telecommuted or purchased goods on the internet might choose to accomplish those tasks via automobile trips as a result of increased speeds.
- **Land Use Changes.** Faster travel times along a corridor lead to land development farther along that corridor; that new development generates and attracts longer trips, which increases vehicle travel. Over several years, this growth component of induced vehicle travel can be substantial.

4.15.4 Impacts Analysis

The proposed project seeks to develop the site with 160 single-family residential units, as well as non-residential uses, primarily site-serving agricultural, recreational, and social land uses. No existing trip generation credits were taken for the former golf course use.

Trip Generation

The proposed project is designed as an "Agri-hood" that places residential uses adjacent to amenity land uses that would primarily cater to residents of the site. The Event Barn, Social at the Gardens, and The Club would connect residents of the site socially and provide programmed events for both residents and for the nearby community.

Trip generation rates for each land use are derived from the SANDAG's Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, published in April 2002. Many of the proposed project's non-residential uses are atypical and do not have published trip generation rates. Based on The Farm in Poway Specific Plan (Specific Plan), non-residential land uses are not expected to generate many new trips from outside the site (The Farm in Poway LLC 2020). It is more likely that these uses would serve residents of proposed project, with the capacity to welcome community residents as well. However, for purposes of using commonly known, published trip rates, SANDAG was sourced for gross trip generation, internal mixed-use reductions, and net trip generation. Special consideration was given where SANDAG rates were not available (i.e., peak-hour splits, in/out trips), and is noted in the calculations.

A review of the trip rates for the former golf course/country club use were also reviewed for comparative purposes and demonstrate the historical baseline for the project site. The StoneRidge County Club and associated golf course were in operation for approximately 60 years and ceased operations in November 2017.

The trip generation rates are listed in Table 4.15-10 for each use, with additional footnotes explaining variances in the rate source and/or rate selection. Table 4.15-11 shows the trip generation rates for the former StoneRidge Country Club.

Table 4.15-10. Trip Generation Rates – Proposed Project

Project Component	Source	Land Use	Rate
Non-Residential			
The Club [a] Pool/four tennis courts,/16 pickleball courts/Multi-Purpose Room	SANDAG	Racquetball/ Health club	30/KSF
Social @ The Gardens [b] Café/Coffee/Wine and Beer Garden	SANDAG	Quality restaurant	100/KSF
The Barn [c] Wedding Venue/Music Venue/ Multi-Purpose Room	SANDAG	Theater (multiplex/with matinee)	40/KSF
Programmed Open Space Recreation [d] The Butterfly Farm Vivarium/Greenhouse, Classroom, Picnic Area, Tot Lot, Dog Park, Community Gardens, Trails	SANDAG/ITE [d]	City park	50/acre
Agrifields [e]	SANDAG/ITE [e]	Agriculture	2/acre
Unprogrammed Open Space Conservation[f] Tranquility Garden, Ornamental Landscape	SANDAG/ITE [f]	Neighborhood/ County park	5/acre
Residential g			
110-foot x 180-foot Single-family *(2.5 DU/Acre)*	SANDAG	Single-family detached > 2 < 6 DU/Acre	10/DU
70-foot x 100-foot Single-family *(4.7 DU/Acre)*	SANDAG	Single-family detached > 2 < 6 DU/Acre	10/DU
35-foot x 100-foot Twin homes *(10.7 DU/Acre)*	SANDAG	Condominium (or any multi-family) > 6 < 10 DU/Acre	10/DU
100-foot x100-foot Single-family *(3.5 DU/Acre)*	SANDAG	Single-family detached > 2 < 6 DU/Acre	10/DU

Table 4.15-10. Trip Generation Rates – Proposed Project

Project Component	Source	Land Use	Rate
100-foot x100-foot Single-family cottage courts *(5.4 DU/Acre)*	SANDAG	Single-family detached > 2 < 6 DU/Acre	10/DU

Source: Appendix J.
Notes: DU = dwelling units; KSF = Thousand square feet.
[a] SANDAG rate for "Racquetball/Health Club" used.
[b] SANDAG "Quality Restaurant" rate applied.
[c] SANDAG trip rate for "Theaters" is used to calculate generated trips. The rate was reduced by 50 percent given the unlikelihood of weekday activity per the Specific Plan. To account for potential morning trips from schools to educational sites, morning peak hour share was increased from 1 percent to 4 percent (6:4). It should also be noted that weddings, parties, and similar larger events shall be limited in accordance with the Specific Plan to minimize traffic impacts. In addition, the amount of special events at The Barn would be limited in use and do not represent "typical day" conditions.
[d] Programmed Park rate sourced to SANDAG rate for "City Park." City Park rate is defined as being "developed with meeting room and sport facilities." It is anticipated that the Programmed Park uses would allow for educational activities for students from local schools. Programmed Park represents the potential for scheduled activities occurring during weekday periods.
[e] SANDAG "Agriculture" rate applied. For peak splits, Institute of Transportation Engineers 818 "Nursery (Wholesale)" rate applied. (Ins/Outs sourced to 9th Edition, since 10th doesn't provide Ins/Outs).
[f] Unprogrammed Park rate sourced to SANDAG rate for "Neighborhood/County (undeveloped)" Park. Unprogrammed Park uses represent passive open space-type uses with no scheduled weekday activities.
[g] SANDAG residential trip rates based on density (dwelling units/acre).

Table 4.15-11. Trip Generation Rates – Former StoneRidge Country Club

Former Use	Source	Land Use	Rate
StoneRidge Country Club			
Golf Course [a]	SANDAG	Golf Course	40/Hole
Club House [b]	SANDAG	Racquetball/ Health Club	30/KSF

Source: Appendix J.
Notes: KSF = Thousand square feet.
[a] SANDAG rate for "Golf Course" used.
[b] SANDAG rate for "Racquetball/Health Club" used.

Table 4.15-12 tabulates the proposed project's traffic generation using the rates in Table 4.15-10 for the proposed project. The total trips generated by the proposed project would be approximately 2,938 ADT, with 189 AM peak-hour trips (72 inbound/117 outbound) and 273 PM peak-hour trips (181 inbound/92 outbound).

Where a project contains a mix of uses that would interact with one another, a deduction against a project's trips may be taken to account for the share of trips that would occur internally within the project site. A mixed-use project is a development that blends different land use types whose functions are physically and functionally integrated. A prime example of a mixed-use project would be the combination of residential and retail uses. For a project to be considered mixed use, the key feature is proximity to the integrated land uses. These uses can be near each other, within walking/bicycling distance, and within driving distance of each other within the project boundary (i.e., trips do not leave a project site). The internal capture rate from the SANDAG guide was reviewed for use in the trip generation. The SANDAG guide allows for a reduction in trip generation for projects that have access to transit (5 percent) and projects that include a mix of uses such as residential with retail (10 percent), for a total of up to 15 percent. The 5 percent reduction in trip generation for access to transit was applied, as there is an existing bus stop along Espola Road and within one-quarter mile of the project site, which the proposed project would improve based on recommendations in the Transportation Impact Analysis (Appendix J). The non-residential uses on the project

site consist of recreational, retail, educational, and event space. These uses are primarily provided as amenities to local residents within the site. For example, it would not be expected that a large number of trips generated by The Club, The Social, and weekday events at The Barn would come from external uses. The majority of these trips would likely be residents of the proposed project that either walk, bike, or use alternative vehicles to get from their homes to these amenity uses. To capture the phenomenon of these captured internal trips, the SANDAG mixed-use reduction of 15 percent was applied given the proposed project's close proximity to transit and mix of residential and site-serving non-residential uses. With this applied credit, the net new trips generated by the proposed project would be approximately 2,524 ADT, with 169 AM peak-hour trips (62 inbound/107 outbound) and 237 PM peak-hour trips (159 inbound/78 outbound).

Prior to the closure of the StoneRidge Country Club, the golf course land use was calculated to generate approximately 1,440 ADT with 80 AM peak-hour trips (58 inbound/22 outbound) and 130 PM peak-hour trips (59 inbound/71 outbound), as shown in Table 4.15-13. As previously stated, no existing trip generation credits were taken for the former golf course/country club use.

Table 4.15-12. Trip Generation – Proposed Project

ID	Land Use	Size		Daily Trip Ends (ADTs)[a]			AM Peak Hour					PM Peak Hour				
								In:Out	Volume				In:Out	Volume		
				Rate[b]		Volume	Rate[b]	Split	In	Out	Total	Rate[b]	Split	In	Out	Total
Non-Residential																
A	The Club[c] *Pool/four tennis courts/16 pickleball courts/Multi-Purpose Room*	6	KSF	30	/KSF	180	4%	60:40	4	3	7	9%	60:40	10	6	16
B	Social @ The Gardens[d] *Café/Coffee/Wine and Beer Garden*	4.8	KSF	100	/KSF	480	1%	60:40	3	2	5	8%	70:30	27	11	38
C	The Barn[e] *Wedding Venue/Music Venue/ Multi-Purpose Room*	5.3	KSF	40	/KSF	212	4%	60:40	5	3	8	8%	60:40	10	7	17
D	Programmed Open Space Recreation[f] *The Butterfly Farm Vivarium/Greenhouse, Classroom, Picnic Area, Tot Lot, Dog Park, Community Gardens, Trails*	5.15	Acres	50	/Acre	258	13%	50:50	17	17	34	9%	50:50	12	11	23
E	Agrifields[g]	8.7	Acres	2	/Acre	17	0.26	43:57	1	1	2	0.45	57:43	2	2	4
F	Unprogrammed Open Space Conservation[h] *Tranquility Garden, Ornamental Landscape*	47.0	Acres	5	/Acre	235	4%	50:50	5	4	9	8%	50:50	10	9	19
G	*Subtotal Non-Residential Trips (A+B+C+D+E+F)*					*1,382*	—	—	*35*	*30*	*65*	—	—	*71*	*46*	*117*
H	*Non-Residential Internal Capture (G*15%)[i]*				*15%*	*(207)*	—	—	*(5)*	*(5)*	*(10)*	—	—	*(11)*	*(7)*	*(18)*
I	*Net New Non-Residential Trips (G+H)*					*1,175*	—	—	*30*	*25*	*55*	—	—	*60*	*39*	*99*
Residential[j]																
J	110'x180' Single-family *(2.5 DU/Acre)*	20	DU	10	/DU	200	8%	30:70	5	11	16	10%	70:30	14	6	20

Table 4.15-12. Trip Generation – Proposed Project

ID	Land Use	Size		Daily Trip Ends (ADTs)[a]			AM Peak Hour					PM Peak Hour				
								In:Out	Volume				In:Out	Volume		
				Rate[b]		Volume	Rate[b]	Split	In	Out	Total	Rate[b]	Split	In	Out	Total
K	70'x100' Single-family *(4.7 DU/Acre)*	13	DU	10	/DU	130	8%	30:70	3	7	10	10%	70:30	9	4	13
L	35'x100' Twin homes *(10.7 DU/Acre)*	22	DU	8	/DU	176	8%	20:80	3	11	14	10%	70:30	13	5	18
M	100'x100' Single-family *(3.5 DU/Acre)*	15	DU	10	/DU	150	8%	30:70	4	8	12	10%	70:30	11	4	15
N	100'x100' Single-family cottage courts *(5.4 DU/Acre)*	90	DU	10	/DU	900	8%	30:70	22	50	72	10%	70:30	63	27	90
O	*Subtotal Residential Trips (J+K+L+M+N)*	*160*	*DU*		—	*24,490*	—	—	*37*	*87*	*124*	—	—	*110*	*46*	*156*
P	*Residential Internal Capture (Match Non-Residential) (H)*[k]					*(207)*	—	—	*(5)*	*(5)*	*(10)*	—	—	*(11)*	*(7)*	*(18)*
Q	*Net New Residential Trips (O+P)*					*1,349*	—	—	*32*	*82*	*114*	—	—	*99*	*39*	*138*
	Gross Trip Generation (G+O)					*2,938*	—	—	*72*	*117*	*189*	—	—	*181*	*92*	*273*
	Total Internal Capture					*(414)*	—	—	*(10)*	*(10)*	*(20)*	—	—	*(22)*	*(14)*	*(36)*
	Net New Trip Generation (I+Q)					*2,524*	—	—	*62*	*107*	*169*	—	—	*159*	*78*	*237*

Source: Appendix J.

Notes: DU = dwelling units; KSF = Thousand square feet.

SANDAG calculates daily trips using a rate based on an independent variable (i.e., dwelling units, students, acres) and expresses AM and PM peak-hour trips as a percentage of ADT. Institute of Transportation Engineers rates utilize ratios of the independent variable for calculating ADT, AM and PM peak-hour trips.

[a] Average daily trips

[b] Rates are based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002, for all gross, primary, and pass-by-diverted trip rates, except where noted. SANDAG calculates AM and PM peak-hour trips as a percentage of ADT. Institute of Transportation Engineers rates utilize ratios of the independent variable for calculating ADT, AM and PM peak-hour trips.

[c] SANDAG rate for "Racquetball/Health Club" used.

[d] SANDAG "Quality Restaurant" rate applied.

e SANDAG trip rate for "Theaters" is used to calculate generated trips. The rate was reduced by 50 percent given the unlikelihood of weekday activity per the Specific Plan. To account for potential morning trips from schools to educational sites, morning peak hour share was increased from one to four percent (6:4). It should also be noted that weddings, parties, and similar events should be limited in accordance with the Specific Plan to minimize traffic impacts.

f Programmed Park rate sourced to SANDAG rate for "City Park." City Park rate is defined as being developed with meeting room and sport facilities. Programmed Park represents the potential for scheduled activities occurring during weekday periods.

g SANDAG "Agriculture" rate applied. For peak splits, Institute of Transportation Engineers 818 "Nursery (Wholesale)" rate applied. (Ins/Outs sourced to 9th Edition, since 10th doesn't provide Ins/Outs).

h Unprogrammed Park rate sourced to SANDAG rate for "Neighborhood/County (undeveloped)" Park. Unprogrammed Park uses represent passive open space-type uses with no scheduled weekday activities.

l SANDAG allows a five percent trip reduction for land uses with transit access or near transit stations accessible within a 0.25-mile distance. The Poway Loop MTS Route 945A stops directly adjacent to the project site. In addition, SANDAG allows an additional 10 percent mixed-use reduction for developments where residential and commercial land uses are combined. For the site, this applies to the non-residential uses as it would not be expected that the majority of trips generated by The Club, Social Room, Event Barn, and all Open Space uses would likely be from outside the residents of the project site. Thus, 15 percent internal capture appears to be a conservative internal capture rate. The non-residential internal capture volumes were deducted from the reciprocal residential trips.

j SANDAG residential trip rates based on density (dwelling units/acre).

k The mixed-use internal capture reduction from the non-residential uses results in a reciprocal reduction in trips for the residential uses.

Table 4.15-13. Trip Generation – Former StoneRidge Country Club

Land Use (To be Replaced)	Size		Daily Trip Ends (ADTs)[a]			AM Peak Hour					PM Peak Hour				
							In:Out	Volume				In:Out	Volume		
			Rate[b]		Volume	Rate[b]	Split	In	Out	Total	Rate[b]	Split	In	Out	Total
StoneRidge Country Club															
Golf Course[c]	18	Holes	40	/Hole	720	7%	80:20	41	10	51	9%	30:70	20	45	65
Club House[d]	24	KSF	30	/KSF	720	4%	60:40	17	12	29	9%	60:40	39	26	65
Total Former Site Trip Generation					**1,440**	—	—	**58**	**22**	**80**	—	—	**59**	**71**	**130**

Source: Appendix J.

Notes: KSF = Thousand square feet.

Former StoneRidge Country Club trip generation represents the historical baseline for the project site.

No existing trip generation credits were taken for the former golf course/country club use.

a Average daily trips

b Rates are based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.

c SANDAG rate for "Golf Course" used.

d SANDAG "Racquetball/Health Club" rate applied. Square footage estimated from aerial imagery.

Trip Distribution and Assignment

The distribution of project-related traffic was determined using StreetLight Data, which utilizes GPS and location services data from automobiles and mobile devices to identify travel patterns for a selected area. An Origin-Destination analysis was completed using the travel behavior of existing single-family residential homes located in the residential community to the west, adjacent to the project site. The travel patterns and behavior of these existing residences was considered reasonably proxy for what could be expected by the proposed project's residents. The data analytics yielded the percentage of traffic originating from the adjacent area to cordon lines on the nearby roadway network. For the project distribution, a one-year period during Tuesday through Thursday weekdays was selected to develop the distribution for use in the analysis. As a result of this exercise, 34 percent of project-related trips are expected to be regional trips using I-15 (25 percent south of Ranch Bernardo Road, nine percent north of Rancho Bernardo Road). The remaining 66 percent of trips would use local streets to reach their ultimate destinations.

It should be noted that project-related traffic was distributed through the identified cut-through routes along Martincoit Road/Stone Canyon Road, Avenida Florencia/Avenida La Valencia, and Summerfield Lane/Rios Road based on the results of the Origin-Destination exercise.

Once the traffic distribution was established, the project-generated traffic was assigned to the adjacent street system (see Figure 4.15-6, Project Traffic Distribution, and Figure 4.15-7, Project Traffic Volumes).

Cumulative Conditions – Near-Term (Opening Year 2025)

Cumulative projects are other projects in the study area that would add traffic to the local circulation system in the near future. LLG coordinated with City staff and reviewed the City of San Diego's Open DSD website to identify relevant, pending cumulative projects in the study area that could be constructed and generating traffic in the study area vicinity by the expected opening year of the proposed project (2025). Based on this research, 10 cumulative projects are planned nearby that would add to traffic to study area intersections, street segments, and freeways. Traffic generated by these projects was added to the existing traffic volumes to develop the Near-Term (Opening Year 2025) condition. Project-related traffic was added to the near-term traffic volumes to arrive at the Near-Term (Opening Year 2025) With Project condition. The following is a brief description of each of the cumulative projects.

City of Poway Cumulative Projects

1. **Aria Estates** proposes seven market-rate single-family housing units. The proposed residential project is located near the northeast quadrant of the Poway Road/Pomerado Road intersection on a vacant parcel. The proposed Aria Estates project was included in both the near-term and horizon year analysis. The project is calculated to generate approximately 70 ADT with two inbound and four outbound trips in the AM peak hour, and five inbound and two outbound trips in the PM peak hour.
2. **Vantage Point (former Parkway Summit)** proposes approximately 531,000 square feet of warehouse/distribution land use in two buildings. The project is located at 14400 and 14500 Kirkham Way in the South Poway Business Park. Construction is expected to start in spring 2019, with an anticipated completion date of late 2019/early 2020. The proposed Vantage Point project was included in both the near-term and horizon year analysis. The project is calculated to generate approximately 2,655 ADT with 243 inbound and 103 outbound trips in the AM peak hour, and 160 inbound and 239 outbound trips in the PM peak hour.

3. **Villa de Vida** proposes an affordable housing project that would provide rental units to low- and moderate-income disabled adults. The proposed two-story, 54-unit complex is located at 12341 Oak Knoll Road, adjacent to Poway Creek. Construction is expected to commence in 2019. The proposed Villa de Vida project was included in both the near-term and horizon year analysis. The project is calculated to generate approximately 432 ADT with seven inbound and 28 outbound trips in the AM peak hour, and 31 inbound and 13 outbound trips in the PM peak hour.
4. **Outpost** proposes three mixed-use buildings consisting of commercial/retail, restaurant, residential, and fitness land uses. Building one consists of a 30-foot-tall, two-story structure with the 20,000-square-foot food hall on the first and second floor, and a 6,500-square-foot patio on the upper floor. Building two consists of a three-story, 30-foot-tall residential building with four two-bedroom live/work units and two two-story lofts. Building three consists of a three-story, 38-foot-tall structure with the 20,225-square-foot fitness center, 33 two-bedroom apartments, 10 one-bedroom apartments, and four two-bedroom units. The proposed project is located at 13247 Poway Road, near Community Road. The project is currently under construction, commencing in August 2018, with completion expected in fall 2019. The proposed Outpost project was included in both the near-term and horizon year analysis. The project is calculated to generate approximately 4,196 ADT with 99 inbound and 87 outbound trips in the AM peak hour, and 221 inbound and 193 outbound trips in the PM peak hour.
5. **Chick-fil-A** proposes to redevelop the former Cocos restaurant site with a Chick-fil-A restaurant. The proposed project will demolish the vacant 6,500-square-foot restaurant and replace it with a 4,584-square-foot fast food restaurant with a double drive through order lane. The proposed project is located at 13464 Poway Road. The proposed Chick-fil-A project was included in both the near-term and horizon year analysis. The project is calculated to generate approximately 1,107 net new ADT with 35 inbound and 35 outbound trips in the AM peak hour, and 35 inbound and 35 outbound trips in the PM peak hour. The project is now completed.
6. **Poway Commons** proposes to develop a mixed-use project consisting of residential and commercial/retail uses. The development proposes 98 for-sale, market-rate, attached housing units, approximately 25,000 square feet of commercial retail space, and 44 affordable senior housing units. The affordable unit component will consist of 36 one-bedroom units, eight two-bedroom units, a 2,750-square-foot community room, and a manager's office. The project is located on Poway Road near the intersection of Tarascan Drive and Civic Center Drive. The proposed Poway Commons project was included in both the near-term and horizon year analysis. The project is calculated to generate approximately 4,136 ADT with 91 inbound and 120 outbound trips in the AM peak hour, and 230 inbound and 184 outbound trips in the PM peak hour.

City of San Diego Cumulative Projects

7. **Black Mountain Ranch North Village (Subarea I)** represents Phase II-B of Black Mountain Ranch. The design of the North Village, which is approximately 640 acres in size, is the product of community-based planning by the property owner, the City of San Diego, the surrounding communities and environmental organizations. Per the Black Mountain Ranch Subarea Plan, the North Village projected development consists of 2,902 residential units with 590,000 square feet of non-residential uses. A modification to the Black Mountain Ranch Specific Plan was made in 2008 to reallocate land uses within the North Village and thus increase traffic generation. Per the Black Mountain Ranch – North Village proposed project traffic letter prepared by KOA Corporation, dated July 30, 2008, a total of 27,330 ADT was projected to be generated by the North Village. Since that time, the majority of the North Village has been constructed and is currently occupied. Based on LLG's best efforts to determine the amount of development remaining to be constructed, approximately 80 percent of the North Village was assumed to be constructed and generating traffic. Research on currently pending/approved projects within the North Village indicate that

Back Mountain Ranch North Village No. 14224, PTS#550005 proposes to construct 119 condominium units in Block F and 94 row homes in Block G. For inclusion in the near-term cumulative condition, the trips generated by the 119 condominium units and 94 row homes were assumed in the near-term analysis. The remaining 20 percent of the North Village buildout was assumed to be operational by the horizon year condition. The Block F and G projects within North Village is calculated to generate approximately 1,892 ADT with 39 inbound and 114 outbound trips in the AM peak hour, and 134 inbound and 56 outbound trips in the PM peak hour.

8. **Pacific Village** proposes the redevelopment of an existing 41-acre, 332-unit, one- and two-bedroom apartment rental complex known as Peñasquitos Village. The project is located west of I-15, east of Carmel Mountain Road, and south of the Peñasquitos Drive Shopping Center. Pacific Village proposes 99 single-family cluster homes, 105 multi-family tri-plex units, and 120 row homes, for a total of 324 units. In addition, the northern portion of the site will be entitled for 277 apartments for rent. The total allowable development is 600 dwelling units. The proposed Pacific Village project was included in both the near-term and horizon year analyses. Subtracting the existing site trip generation from the proposed project, the net new trips expected on the street system with redevelopment of the site is 1,796 net new ADT with 144 net new trips during the AM peak hour (29 inbound/115 outbound) and 163 net new trips during the PM peak hour (114 inbound/49 outbound).
9. **The Junipers** proposes the redevelopment of the defunct golf course, as well as the demolition of the existing operational tennis courts serving the Hotel Karlan with an age-qualified (55+) residential neighborhood featuring 455 attached and detached, for-sale multi-family housing units and 81 multi-family, for-rent affordable housing units for a total of 536 housing units. The proposed Junipers project was included in both the near-term and horizon year analysis. The project is calculated to generate approximately 2,144 ADT with 43 inbound and 64 outbound trips in the AM peak hour, and 90 inbound and 60 outbound trips in the PM peak hour.
10. **Casa De Las Campañas** proposes a mechanical remodel of a 40,000-square-foot, 99-bed skilled-nursing facility and construction of a new 32,000-square-foot special care assisted-living facility consisting of 18 apartments located at the existing Casa Del Las Campañas Continuing Care Retirement Community located at 18655 W. Bernardo Drive. The project is currently under construction and was included in both the near-term and horizon year analysis. The project is calculated to generate approximately 72 ADT with two inbound and one outbound trips in the AM peak hour, and three inbound and three outbound trips in the PM peak hour.

As shown in Figure 4.15-8, Cumulative Projects, the cumulative projects are located well outside the study area for the proposed project. The City projects are mostly located along Poway Road and would not be expected to traverse substantially within the local study area. The City of San Diego projects are also far from the study area boundary and would not generate substantial trips on local study area roadways. Trips from cumulative projects were, however, assigned to I-15 where appropriate.

Given the lack of nearby cumulative development projects adding traffic to the study area, a review of traffic volumes along key arterials (Rancho Bernardo Road, Espola Road, Pomerado Road) was conducted using the SANDAG Traffic Forecast Model, as well as forecast volumes from the Poway Circulation Element. An average growth factor of 0.5 percent per year for seven years was calculated and, therefore, applied to the 2018 counts to arrive at the anticipated Opening Year (Year 2025) traffic volumes.

It should also be noted that the PM peak hour cumulative traffic volumes were also applied to the School Zone midday peak between 1:45 p.m. to 3:45 p.m., for purposes of being conservative. Analysis of the school peak hour is provided in Section 15 of Appendix J.

Near-Term (Opening Year 2025) Scenarios

The following section presents the analysis of study area locations under two scenarios. The Near-Term (Opening Year 2025) condition includes nearby cumulative development projects, but not the proposed project. As discussed, a cumulative growth factor was added to existing traffic volumes given the majority of cumulative development projects are located outside the study area. This scenario assumes the existing lane geometrics. The Near-Term (Opening Year 2025) With Project scenario represents the effect of adding project-related traffic to the existing street network with no improvements assumed, and the assumed cumulative growth.

A separate analysis of the school zone midday PM peak period is provided in Section 16 of Appendix J.

Near-Term Without Project (Opening Year 2025)

Intersections

Table 4.15-14 summarizes the peak hour intersection operations for the Near-Term (Opening Year 2025) condition. As seen in Table 4.15-14, with the addition of cumulative projects' traffic, all intersections are calculated to operate at acceptable LOS D or better except for the following:

- Intersection 17. Pomerado Road/Stone Canyon Road – LOS F during the AM/PM peak hours

Street Segments

Table 4.15-15 summarizes the key segment operations in the study area for the Near-Term (Opening Year 2025) condition. As seen in Table 4.15-15, with the addition of cumulative projects traffic, all study area segments are calculated to operate at LOS D or better, except for the following:

- Segment 1. Rancho Bernardo Road, from W. Bernardo Drive to I-15 Southbound Ramps – LOS F

Ramp Meters

Table 4.15-16 summarizes the operations of the on-ramp meter for the Near-Term (Opening Year 2025) condition. The results of the ramp meter analysis are shown as follows

- Rancho Bernardo Road Westbound to I-15 Southbound: Under the Near-Term (Opening Year 2025) conditions, this ramp is calculated to operate with 3.9 minutes of delay during the AM peak hour.
- Rancho Bernardo Road Westbound to I-15 Southbound: Under the Near-Term (Opening Year 2025) conditions, this ramp is calculated to continue to operate with no delay during the PM peak hour.

Freeway Mainline Segments

Table 4.15-17 shows the freeway mainline segment analyses for the Near-Term (Opening Year 2025) condition. As seen in Table 4.15-17, the study area freeway mainline segments of I-15 are calculated to continue to operate at LOS D or better conditions, except for the following:

- Mainline No.1. I-15 north of Rancho Bernardo Road
  - Segment 1: Northbound – LOS E (PM peak hour)
  - Segment 2: Southbound – LOS F (AM peak hour)

- Mainline No.2. I-15 south of Rancho Bernardo Road
  - Segment 3: Northbound – LOS E (PM peak hour)
  - Segment 4: Southbound – LOS F/E (AM/PM peak hours)

Near-Term Plus Project (Opening Year 2025)

Intersections

Table 4.15-14 summarizes the peak hour intersection operations for Near-Term (Opening Year 2025) Plus Project conditions. As seen in Table 4.15-14, with the addition of cumulative projects and project-related traffic all intersections are calculated to continue to operate at acceptable LOS D or better, except for the following:

- Intersection 17. Pomerado Road/Stone Canyon Road – Exacerbates LOS F during the AM/PM peak hours beyond City of San Diego thresholds (**Impact TRA-1**)

The project-related increase in delay at the intersection above exceeds the allowable threshold based on the applied criteria. Therefore, one **potentially significant** direct impact is calculated at this location (**Impact TRA-1**).

Street Segments

Table 4.15-15 summarizes the key segment operations in the study area for the Near-Term (Opening Year 2025) Plus Project conditions. As seen in Table 4.15-15, all study area segments are calculated to continue to operate at LOS D or better, except for the following:

- Segment 1. Rancho Bernardo Road, from W. Bernardo Drive to I-15 Southbound Ramps – LOS F

Based on the applied significance criteria, no significant direct impacts were calculated with the addition of project-related traffic, as the increase in v/c due to the proposed project on the above-listed segment is below the significance threshold of 0.02. Impacts would be **less than significant** based on Caltrans and City of San Diego thresholds.

Ramp Meters

Table 4.15-16 summarizes the operations of the on-ramp meter for the Near-Term (Opening Year 2025) Plus Project condition. The results of the ramp meter analysis are as follows:

- Rancho Bernardo Road Westbound to I-15 Southbound: Under the Near-Term (Opening Year 2025) Plus Project conditions, this ramp is calculated to operate with 6.8 minutes of delay during the AM peak hour.
- Rancho Bernardo Road Westbound to I-15 Southbound: Under the Near-Term (Opening Year 2025) conditions, this ramp is calculated to continue to operate with no delay during the PM peak hour.

Both ramp meters are calculated operate with less than fifteen minutes of delay. Therefore, impacts would be **less than significant** based on Caltrans thresholds.

Freeway Mainline Segments

Table 4.15-17 shows the freeway mainline segment analyses for the Near-Term (Opening Year 2025) Plus Project condition. As seen in Table 4.15-17, the study area freeway mainline segments of I-15 are calculated to continue to operate at LOS D or better conditions, except for the following:

- Mainline No.1. I-15 north of Rancho Bernardo Road
  - Segment 1: Northbound – LOS E (PM peak hour)
  - Segment 2: Southbound – LOS F (AM peak hour)
- Mainline No.2. I-15 south of Rancho Bernardo Road
  - Segment 3: Northbound – LOS E (PM peak hour)
  - Segment 4: Southbound – LOS F/E (AM/PM peak hours)

Project-induced change in v/c is less than 0.01 for LOS E or LOS F operating freeway segments. Therefore, based on the established significance criteria, no significant direct impacts would result with the addition of project traffic on the freeway segments. Impacts would be **less than significant** based on Caltrans thresholds.

Table 4.15-14. Near-Term (Opening Year 2025) Intersection Operations

Intersection	Jur.	Control Type	Peak Hour	Near-Term (Opening Year 2025)		Near-Term (Opening Year 2025) With Project		Δ [c] Delay	Sig?
				Delay a	*LOS b*	*Delay*	*LOS*		
1. I-15 Southbound Ramps/ Rancho Bernardo Rd	Caltrans/ San Diego	Signal	AM	41.9	D	44.5	D	2.6	No
			PM	28.1	C	28.9	C	0.8	
2. I-15 Northbound Ramps/ Rancho Bernardo Rd	Caltrans/ San Diego	Signal	AM	30.0	C	30.1	C	0.1	No
			PM	36.7	D	37.0	D	0.3	
3. Bernardo Center Dr/ Rancho Bernardo Rd	San Diego	Signal	AM	26.8	C	27.7	C	0.9	No
			PM	35.6	D	36.6	D	1.0	
4. Pomerado Rd/ Rancho Bernardo Rd	San Diego	Signal	AM	35.6	D	37.5	D	1.9	No
			PM	46.7	D	51.3	D	4.6	
5. Summerfield Ln/ Espola Rd	San Diego	Signal	AM	5.2	A	5.2	A	0.0	No
			PM	4.7	A	4.7	A	0.0	
6. Avenida Florencia/ Espola Rd	Poway	MSSC [d]	AM	18.2	C	19.2	C	1.0	No
			PM	18.0	C	19.7	C	1.7	
7. Valle Verde Rd/ Espola Rd	Poway	Signal	AM	38.2	D	42.7	D	4.5	No
			PM	19.0	B	19.4	B	0.4	
8. Valle Verde Rd/ St Andrews Dr	Poway	TWSC	AM	29.1	D	29.5	D	0.4	No
			PM	16.6	C	16.7	C	0.1	
9. Martincoit Rd/ Espola Rd	Poway	Signal	AM	10.5	B	20.7	C	10.2	No
			PM	7.2	A	15.3	B	8.1	
10. Cloudcroft Dr/ Espola Rd	Poway	MSSC	AM	19.2	C	20.6	C	1.4	No
			PM	14.6	B	15.5	C	0.9	
11. Old Coach Rd/ Espola Rd	Poway	Signal	AM	9.9	A	9.9	A	0.0	No
			PM	8.8	A	8.8	A	0.0	
12. Espola Rd/ Lake Poway Rd	Poway	Signal	AM	16.0	B	16.4	B	0.4	No
			PM	14.8	B	14.9	B	0.1	

Table 4.15-14. Near-Term (Opening Year 2025) Intersection Operations

Intersection	Jur.	Control Type	Peak Hour	Near-Term (Opening Year 2025)		Near-Term (Opening Year 2025) With Project		Δ [c]	Sig?
				Delay a	*LOS b*	*Delay*	*LOS*	Delay	
13. Espola Rd/ Eden Grove/ Titan Way	Poway	Signal	AM	33.6	C	34.5	C	0.9	No
			PM	12.1	B	12.1	B	0.0	
14. Espola Rd/ Twin Peaks Rd	Poway	Signal	AM	34.1	C	34.8	C	0.7	No
			PM	31.3	C	31.8	C	0.5	
15. Pomerado Rd/ Rios Rd	San Diego	Signal	AM	11.0	B	11.0	B	0.0	No
			PM	10.9	B	11.0	B	0.1	
16. Pomerado Rd/ Avenida La Valencia	San Diego	Signal	AM	9.3	A	9.3	A	0.0	No
			PM	10.4	B	10.6	B	0.2	
17. Pomerado Rd/ Stone Canyon Rd	San Diego	Signal	AM	99.6	F	**105.7**	**F**	**6.1**	**Yes**
			PM	90.5	F	**97.6**	**F**	**7.1**	
18. Pomerado Rd/ Bernardo Hts Pkwy	San Diego	Signal	AM	40.8	D	42.3	D	1.5	No
			PM	24.0	C	24.3	C	0.3	
19. Pomerado Rd/ Twin Peaks Rd	Poway	Signal	AM	35.3	D	35.8	D	0.5	No
			PM	40.5	D	42.3	D	1.8	
20. Avenida Florencia/ Avenida La Valencia	Poway	AWSC [e]	AM	7.6	A	7.6	A	0.0	No
			PM	7.7	A	7.7	A	0.0	
21. Del Norte/ Stone Canyon Rd	Poway	Signal	AM	18.5	B	18.6	B	0.1	No
			PM	17.1	B	17.1	B	0.0	
22. Martincoit Rd/ Stone Canyon Rd	Poway	MSSC	AM	9.7	A	9.8	A	0.1	No
			PM	7.9	A	7.9	A	0.0	
23. Boca Raton Ln/ Drwy "E"	Poway	DNE/ MSSC	AM	—	—	7.3	A	—	No
			PM	—	—	7.3	A	—	
24. Tam O'Shanter Dr/ Drwy 'A'	Poway	DNE/ MSSC	AM	—	—	7.3	A	—	No
			PM	—	—	7.3	A	—	
25. Tam O'Shanter Dr/Cloudcroft Dr	Poway	Signal	AM	—	—	7.3	A	—	No
			PM	—	—	7.3	A	—	

Source: Appendix J.
Notes: Sig = Significant impact, yes or no; Jur. = Jurisdiction; DNE = Does not exist.
[a] Average delay expressed in seconds per vehicle.
[b] Level of service
[c] Δ denotes the increase in delay due to project.
[d] Minor street stop-controlled intersection. Minor street left turn delay reported.
[e] All-way-stop controlled intersection. Average intersection delay reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

Table 4.15-15. Near-Term (Opening Year 2025) Street Segment Operations

Street Segment	Jur.	Existing Capacity (LOS E) a	Near-Term (Opening Year 2025)			Near-Term (Opening Year 2025) With Project			Project Volumes	Δ e v/c	Sig?
			ADT [b]	*LOS* [c]	*v/c* [d]	*ADT*	*LOS*	*v/c*			
Rancho Bernardo Rd											
1. W. Bernardo Dr to I-15 Southbound Ramps	Caltrans/ San Diego	40,000	51,630	F	1.291	51,731	F	1.294	101	0.003	No
2. I-15 Southbound Ramps to I-15 Northbound Ramps	Caltrans/ San Diego	50,000	43,050	D	0.861	43,782	D	0.876	732	0.015	No
3. I-15 Northbound Ramps to Bernardo Center Dr	Caltrans/ San Diego	50,000	37,490	C	0.750	38,450	C	0.769	960	0.019	No
4. Bernardo Center Dr to Bernardo Oaks Dr	San Diego	40,000	28,720	C	0.718	29,856	C	0.747	1136	0.029	No
5. Pomerado Rd to Summerfield Ln	San Diego	40,000	21,220	C	0.531	22,861	C	0.572	1641	0.041	No
Espola Rd											
6. Summerfield Ln to Avenida Florencia	Poway	41,000	21,360	C	0.521	23,026	C	0.562	1666	0.041	No
7. Avenida Florencia to Valle Verde Rd	Poway	41,000	21,760	C	0.531	23,527	C	0.574	1767	0.043	No
8. Valle Verde Rd to Martincoit Rd	Poway	41,000	16,500	B	0.403	18,217	B	0.445	1717	0.042	No
9. Martincoit Rd to Cloudcroft Dr	Poway	31,000	15,030	C	0.485	15,611	C	0.504	581	0.019	No
10. Cloudcroft Dr to Old Coach Rd	Poway	31,000	14,980	C	0.484	15,637	C	0.505	657	0.021	No
11. Old Coach Rd to Lake Poway Rd	Poway	31,000	12,690	B	0.410	13,347	B	0.431	657	0.021	No
12. Lake Poway Rd to Titan Wy	Poway	41,000	12,350	A	0.302	12,981	A	0.317	631	0.015	No
13. Titan Wy to Willow Ranch Rd	Poway	41,000	16,740	B	0.409	17,321	B	0.423	581	0.014	No
14. Willow Ranch Rd to Del Poniente Rd	Poway	29,000	16,740	C	0.578	17,321	C	0.598	581	0.020	No
15. Del Poniente Rd to Twin Peak Rd	Poway	29,000	16,740	C	0.578	17,321	C	0.598	581	0.020	No
16. Twin Peaks Rd to Ezra Ln	Poway	29,000	17,420	C	0.601	17,673	C	0.610	253	0.010	No
Pomerado Rd											
17. Pomerado Ct to Rancho Bernardo Rd	San Diego	40,000	29,960	C	0.749	30,162	D	0.755	202	0.007	No
18. Rancho Bernardo Rd to Rios Rd	San Diego	40,000	20,780	B	0.520	21,083	C	0.528	303	0.009	No
19. Rios Rd to Avenida La Valencia	San Diego	40,000	20,780	B	0.520	21,109	C	0.528	329	0.009	No
20. Avenida La Valencia to Stone Canyon Rd	San Diego	40,000	23,460	C	0.587	23,814	C	0.596	354	0.010	No

Table 4.15-15. Near-Term (Opening Year 2025) Street Segment Operations

Street Segment	Jur.	Existing Capacity (LOS E) a	Near-Term (Opening Year 2025)			Near-Term (Opening Year 2025) With Project			Project Volumes	Δ e v/c	Sig?
			ADT [b]	*LOS* [c]	*v/c* [d]	*ADT*	*LOS*	*v/c*			
Pomerado Rd (cont.)											
21. Stone Canyon Rd to Bernardo Heights Pkwy	San Diego	40,000	23,460	C	0.587	23,965	C	0.600	505	0.013	No
22. Bernardo Heights Pkwy to Gateway Park Rd	Poway	50,000	28,570	C	0.572	29,025	C	0.581	455	0.010	No
23. Gateway Park Rd to Monte Vista Rd	Poway	50,000	28,570	C	0.572	29,025	C	0.581	455	0.010	No
24. Monte Vista Rd to Twin Peaks Rd	Poway	50,000	28,570	C	0.572	29,025	C	0.581	455	0.010	No
25. Twin Peaks Rd to Ted Williams Pkwy	Poway	50,000	23,400	B	0.468	23,501	B	0.471	101	0.003	No
Bernardo Center Dr											
26. Bajada Rd to Rancho Bernardo Rd	San Diego	40,000	21,050	C	0.527	21,101	C	0.528	51	0.001	No
27. Rancho Bernardo Rd to Bernardo Plaza Ct	San Diego	40,000	22,670	C	0.567	22,797	C	0.570	127	0.003	No
Rios Rd											
28. Pomerado Rd to Summerfield Ln	San Diego	3,500	2,300	D	0.658	2,326	D	0.665	26	0.008	No
Summerfield Ln											
29. Rios Rd to Rancho Bernardo Rd	Poway	3,800	2,300	C	0.606	2,326	C	0.613	26	0.008	No
Avenida La Valencia											
30. Pomerado Rd to Avenida Florencia	Poway	3,800	2,970	D	0.782	2,996	D	0.789	26	0.008	No
Avenida Florencia											
31. Rancho Bernardo Rd to Avenida La Valencia	Poway	3,800	690	A	0.182	791	A	0.209	101	0.027	No
Del Norte											
32. Avenida La Valencia to Stone Canyon Rd	Poway	3,800	430	A	0.114	506	A	0.134	76	0.020	No
Stone Canyon Rd											
33. Pomerado Rd to Ladera Piedra Way	Poway	14,000	4,720	A	0.338	4,872	A	0.348	152	0.010	No
34. Avenida Florencia to Martincoit Rd	Poway	14,000	3,120	A	0.223	3,196	A	0.229	76	0.007	No

Table 4.15-15. Near-Term (Opening Year 2025) Street Segment Operations

Street Segment	Jur.	Existing Capacity (LOS E) a	Near-Term (Opening Year 2025)			Near-Term (Opening Year 2025) With Project			Project Volumes	Δ e v/c	Sig?
			ADT [b]	*LOS* [c]	*v/c* [d]	*ADT*	*LOS*	*v/c*			
Martincoit Rd											
35. Rancho Bernardo Rd to Stone Canyon Rd	Poway	14,000	2,730	A	0.195	2,831	A	0.203	101	0.009	No
Twin Peaks Rd											
36. World Trade Dr to Pomerado Rd	Poway	63,000	36,620	B	0.582	36,797	C	0.585	177	0.003	No
37. Pomerado Rd to Deerwood Dr	Poway	50,000	30,400	C	0.608	30,577	C	0.612	177	0.004	No
38. Tierra Bonita Rd to Espola Rd	Poway	50,000	18,810	B	0.377	19,139	B	0.383	329	0.007	No
Valle Verde Rd											
39. Espola Rd to St Andrews Dr	Poway	14,000	6,530	B	0.467	6,581	B	0.471	51	0.004	No
St. Andrews Dr											
40. Valle Verde Rd to Tam O'Shanter Dr	Poway	3,800	1,590	B	0.419	1,641	C	0.432	51	0.013	No
Tam O'Shanter Dr											
41. St Andrews Dr to Pvt Dr "E"	Poway	3,800	1,590	B	0.419	1,616	C	0.426	26	0.008	No
42. Pvt Dr "E" to Cloudcroft Ct	Poway	3,800	460	A	0.122	511	A	0.135	51	0.013	No
Cloudcroft Dr											
43. Cloudcroft Ct to Rancho Bernardo Dr	Poway	3,800	1,420	B	0.374	1,496	B	0.394	76	0.020	No
Bernardo Heights Pkwy											
44. Paseo Lucido to Pomerado Rd	San Diego	40,000	10,840	A	0.271	10,891	A	0.273	51	0.002	No
Lake Poway Rd											
45. East of Espola Rd	Poway	14,000	960	A	0.069	986	A	0.071	26	0.002	No
Titan Way											
46. West of Espola Rd	Poway	14,000	6,080	B	0.435	6,131	B	0.438	51	0.003	No

Source: Appendix J.
Notes: Jur = Jurisdiction; Sig = Significant impact, yes or no; DNE = Does not exist

a Capacities based on City of Poway and City of San Diego Roadway Classification and LOS tables (See Appendix B of Appendix J).
b Average daily traffic
c Level of service
d Volume-to-capacity ratio
e Δ denotes a Project-induced increase in the volume-to-capacity ratio

Table 4.15-16. Near-Term (Opening Year 2025) Ramp Meter Analysis – Fixed Rate

Location	Peak Hour [a]	Near-Term (Opening Year 2025)						
		Volume		*Peak Hour Demand (D) [b]*	*Meter Rate (R) [c]*	*Excess Demand (E) (veh)*	*Delay (min)*	*Queue (ft) [d]*
		SOV	*HOV*					
Rancho Bernardo Rd WB to I-15 Southbound (1 SOV+1 HOV)								
Near-Term (Opening Year 2025)	AM	524	58	524	492	32	3.9	800
Near-Term (Opening Year 2025) With Project	AM	548	61	548	492	56	6.8	1400
Project Increase	*AM*	*24*	*3*	*24*	*—*	*24*	*2.9*	*600*
Rancho Bernardo Rd WB to I-15 Northbound (1 SOV+1 HOV)								
Near-Term (Opening Year 2025)	PM	463	38	463	475	0	0	0
Near-Term (Opening Year 2025) With Project	PM	470	38	470	475	0	0	0
Project Increase	*PM*	*7*	*—*	*7*	*—*	*—*	*—*	*—*

Source: Appendix J.
Notes: SOV = single-occupancy vehicle; HOV = high-occupancy vehicle.
Lane utilization factor accounted for in peak hour demand calculation. (HOV percent observed from PeMS data).
[a] Selected peak hour based on period when ramp meter is operating.
[b] Peak hour demand in vehicles/hour/lane for SOV and HOV lanes.
[c] Meter rate "R" is the most restrictive rate at which the ramp meter (signal) discharges traffic onto the freeway (obtained from Caltrans). The discharge rate varies during the peak hour depending on the mainline volumes.
[d] Queue calculated assuming vehicle length of 25 feet.

Table 4.15-17. Near-Term (Opening Year 2025) Freeway Segment Operations

Freeway Segment	Dir.	Lanes[a]	Near-Term (Opening Year 2025)								Near-Term (Opening Year 2025) With Project								Δ v/c[f]		Sig?
			Volume[b]		*v/c[c]*		*Density[d]*		*LOS[e]*		*Volume*		*v/c*		*Density*		*LOS*				
			AM	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	
Interstate 15																					
North of Rancho Bernardo Rd	NB	5M	6,138	9,399	0.647	0.990	22.2	43.9	C	E	6,148	9,406	0.648	0.991	22.3	44.0	C	E	0.001	0.001	No
	SB	5M	11,117	7,927	1.171	0.835	>45.0	31.6	F	D	11,123	7,941	1.172	0.837	>45.0	31.7	F	D	0.001	0.002	No
South of Rancho Bernardo Rd	NB	5M	7,519	9,424	0.792	0.993	29.1	44.2	D	E	7,535	9,464	0.794	0.997	29.2	44.6	D	E	0.002	0.004	No
	SB	5M	10,460	9,109	1.102	0.959	>45.0	41.0	F	E	10,487	9,129	1.105	0.961	>45.0	41.1	F	E	0.003	0.002	No

Source: Appendix J.

Notes: NB = northbound; SB = southbound; M = Mainline; A = Auxiliary; Sig? = Significant impact, yes or no.

[a] Lane geometry taken from PeMS lane configurations at corresponding postmile.

[b] Existing volume calculated from most recent Caltrans Traffic Census Program Peak Hour Volume Data (2017, as cited in Appendix J). See *Table 6–3* for K and D factors. Cumulative growth added to existing volumes to arrive at Near-Term (Opening Year 2025).

[c] v/c = (peak hour volume/hourly capacity)

[d] Density measures passenger cars per mile per lane. Density = Flow Rate (passenger-cars/hour/lane) ÷ Speed (average passenger-car speed in mph).

[e] Level of service

[f] " Δ" denotes the project-induced increase in v/c. Per City Guidelines, a significant impact occurs when the v/c is increased by greater than 0.01 for LOS E or LOS F.

LOS	Density Range (pc/mi/ln)
A	0 – 11
B	> 11 – 18
C	> 18 – 26
D	> 26 – 35
E	> 35 – 45
F	> 45

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Horizon Year Conditions (2035)

LLG conducted a review of the City's Master Transportation Element, Rancho Bernardo Community Plan Circulation Element, Rancho Bernardo Public Facilities Financing Plan FY 2014, and the SANDAG Series 12 and 13 Traffic Models to identify future network changes in the study area. Specifics on future infrastructure improvements to the circulation network affecting the auto analysis are as follows (Appendix J):

- **Espola Road Safety Improvement Project** –This project involves improving the safety for those who walk, jog, cycle, or ride horses along Espola Road between Poway High School (Titan Way) and Twin Peaks Road. No vehicular auto enhancements are proposed. Therefore, no auto capacity improvements were assumed in the analysis (Capital Improvement Projects Status Report [February 2018] CIP #12010, as cited in Appendix J).
- **Poway Road Corridor Project** –This project seeks to improve land use, transportation, design/aesthetics, and economic development for Poway Road. The transportation analysis will result in recommendations for appropriate transportation improvements along the project corridor. The project is currently in the design stage. Therefore, no auto capacity improvements were assumed in the analysis (Capital Improvement Projects Status Report [February 2018] CIP #12009, as cited in Appendix J).

Horizon Year 2035 Traffic Volumes

In order to forecast Year 2035 roadway segment volumes without the proposed project, LLG conducted a review of the City's Master Transportation Element Year 2030 traffic volumes and the SANDAG Series 12 and 13 Year 2035 traffic model volumes (Appendix J).

In accordance with the industry standard methodology for forecasting Year 2035 volumes, LLG compared the City's Master Transportation Element Year 2008 (base year) to the Master Transportation Element Year 2030 forecast, the Series 12 Year 2008 (base year) volumes to the Series 12 Year 2035 forecast, and the Series 13 Year 2012 (base year) to the Series 12 Year 2035 traffic volumes on study area roadway segments and calculated the annual growth rate over each time period for the major roads through the study area (i.e., Rancho Bernardo Road, Espola Road, Pomerado Road). The average growth rate was then applied to the Existing (Year 2018) traffic volumes used in this study to arrive at Horizon Year 2035 (without project) traffic volumes (Appendix J).

The peak-hour turning movement volumes at an intersection were estimated from future ADT volumes using the relationship between existing peak-hour turning movements and the existing ADT volumes. This same relationship can be assumed to generally continue in the future.

The proposed project traffic was then added to the baseline Year 2035 traffic volumes to arrive at Horizon Year 2035 With Project conditions.

Horizon Year (2035) Scenarios

The following section presents the analysis of study area locations under two scenarios: (1) the Horizon Year Without Project (2035) scenario includes planned roadway network improvements and assumes an average growth rate as explained in the analysis above, and (2) the Horizon Year Plus Project (2035) scenario represents the effect of adding project traffic to year 2035 traffic with improvements assumed, and the average growth rate applied.

Horizon Year Without Project (2035)

Intersections

Table 4.15-18 summarizes the peak hour intersection operations for the Horizon Year Without Project (2035) conditions. As seen in Table 4.15-18, with the addition of cumulative projects traffic, all intersections are calculated to operate at acceptable LOS D or better, except for the following:

- Intersection 4. Pomerado Road/Rancho Bernardo Road – LOS E during the PM peak hour
- Intersection 8. Valle Verde Road/St. Andrews Drive – LOS E during the AM peak hour
- Intersection 14. Espola Road/Twin Peaks Road – LOS E during the AM peak hour
- Intersection 17. Pomerado Road/Stone Canyon Road – LOS F during the AM/PM peak hours
- Intersection 18. Pomerado Road/Bernardo Heights Parkway – LOS E during the AM peak hour
- Intersection 19. Pomerado Road/Twin Peaks Road – LOS E/F during the AM/PM peak hours

Street Segments

Table 4.15-19 summarizes the key segment operations in the study area for the Horizon Year Without Project (2035) conditions. As seen in Table 4.15-19, with the addition of cumulative projects traffic, all study area segments are calculated to operate at LOS D or better, except the following:

- Segment 1. Rancho Bernardo Road, W. Bernardo Drive to I-15 Southbound Ramps – LOS F
- Segment 30. Avenida La Valencia, Pomerado Road to Avenida Florencia – LOS E

Ramp Meters

Table 4.15-20 summarizes the operations of the on-ramp meter for the Horizon Year Without Project (2035) conditions. The results of the ramp meter analysis are as follows:

- Rancho Bernardo Road WB to I-15 Southbound: Under the Horizon Year 2035 conditions, this ramp is calculated to operate with 9.5 minutes of delay during the AM peak hour.
- Rancho Bernardo Road WB to I-15 Southbound: Under the Horizon Year 2035 conditions, this ramp is calculated to operate with 3.0 minutes of delay during the PM peak hour.

Freeway Mainline Segments

Table 4.15-21 shows the freeway mainline segment analyses for the Horizon Year Without Project (2035) conditions. As seen in Table 4.15-21, the study area freeway mainline segments of I-15 are calculated to continue to operate at LOS D or better conditions, except for the following:

- Mainline No.1. I-15 north of Rancho Bernardo Road
  - Segment 1: Northbound – LOS F (PM peak hour)
  - Segment 2: Southbound – LOS F/E (AM/PM peak hour)
- Mainline No.2. I-15 south of Rancho Bernardo Road
  - Segment 3: Northbound – LOS F (PM peak hour)
  - Segment 4: Southbound – LOS F/E (AM/PM peak hours)

Horizon Year Plus Project (2035)

Intersections

Table 4.15-18 summarizes the peak hour intersection operations for Horizon Year Plus Project (2035) conditions. As seen in Table 4.15-18, with the addition of cumulative projects and project traffic all intersections are calculated to continue to operate at acceptable LOS D or better, except for the following:

- Intersection 4. Pomerado Road/Rancho Bernardo Road – LOS E during the PM peak hour
- Intersection 8. Valle Verde Road/St. Andrews Drive – LOS E during the AM peak hour
- Intersection 14. Espola Road/Twin Peaks Road – LOS E during the AM peak hour
- Intersection 17. Pomerado Road/Stone Canyon Road – Exacerbates LOS F during the AM/PM peak hours (**Impact TRA-CU-1**)
- Intersection 18. Pomerado Road/Bernardo Heights Parkway – LOS E during the AM peak hour
- Intersection 19. Pomerado Road/Twin Peaks Road – LOS E/F during the AM/PM peak hours

The project-related increase in delay at Intersection 17 exceeds the allowable threshold based on the applied criteria. Therefore, one **potentially significant** direct impact is calculated at these locations (**Impact TRA-CU-1**).

Street Segments

Table 4.15-19 summarizes the key segment operations in the study area for the Horizon Year Plus Project (2035) conditions. As seen in Table 4.15-19, all study area segments are calculated to continue to operate at LOS D or better, except for the following:

- Segment 1. Rancho Bernardo Road, from W. Bernardo Drive to I-15 Southbound Ramps – LOS F
- Segment 30. Avenida La Valencia, Pomerado Road to Avenida Florencia – LOS E

Based on the applied significance criteria, no significant direct impacts were calculated with the addition of project-related traffic, as the increase in v/c due to the proposed project on the above-listed segment would be below the significance threshold of 0.02. Impacts would be **less than significant**.

Ramp Meters

Table 4.15-20 summarizes the operations of the on-ramp meter for the Horizon Year Plus Project (2035) conditions. The results of the ramp meter analysis are as follows:

- Rancho Bernardo Road WB to I-15 Southbound: Under Horizon Year Plus Project (2035) conditions, this ramp is calculated to operate with 12.6 minutes of delay during the AM peak hour.
- Rancho Bernardo Road WB to I-15 Southbound: Under Horizon Year Plus Project (2035) conditions, this ramp is calculated to continue to operate with three minutes of delay during the PM peak hour.

Both ramp meters are calculated to operate with less than 15 minutes of delay. Therefore, impacts would be **less than significant**.

Freeway Mainline Segments

Table 4.15-21 shows the freeway mainline segment analyses for the Horizon Year Plus Project (2035) conditions. As seen in Table 4.15-21, the study area freeway mainline segments of I-15 are calculated to continue to operate at LOS D or better conditions, except for the following:

- Mainline No.1. I-15 north of Rancho Bernardo Road
  - Segment 1: Northbound – LOS F (PM peak hour)
  - Segment 2: Southbound – LOS F/E (AM/PM peak hour)
- Mainline No.2. I-15 south of Rancho Bernardo Road
  - Segment 3: Northbound – LOS F (PM peak hour)
  - Segment 4: Southbound – LOS F/E (AM/PM peak hours)

Project-induced change in v/c is less than 0.01 for LOS E or LOS F operating freeway segments. Therefore, based on the established significance criteria, no significant direct impacts would result with the addition of project-related traffic on the freeway segments. Impacts would be **less than significant**.

Table 4.15-18. Horizon Year 2035 Intersection Operations

Intersection	Jur.	Control Type	Peak Hour	Horizon Year 2035		Horizon Year 2035 With Project		Δ [c] Delay	Sig?
				Delay [a]	*LOS* [b]	*Delay*	*LOS*		
1. I-15 Southbound Ramps/ Rancho Bernardo Rd	Caltrans/ San Diego	Signal	AM	45.8	D	48.6	D	2.8	No
			PM	31.6	C	31.7	D	0.1	
2. I-15 Northbound Ramps/ Rancho Bernardo Rd	Caltrans/ San Diego	Signal	AM	30.6	C	30.7	C	0.1	No
			PM	44.0	D	50.7	D	6.7	
3. Bernardo Center Dr/ Rancho Bernardo Rd	San Diego	Signal	AM	32.5	C	33.9	C	1.4	No
			PM	44.0	D	45.7	D	1.7	
4. Pomerado Rd/ Rancho Bernardo Rd	San Diego	Signal	AM	47.2	D	49.8	D	2.6	No
			PM	69.9	E	70.2	E	0.3	
5. Summerfield Ln/ Espola Rd	San Diego	Signal	AM	5.2	A	5.2	A	0.0	No
			PM	4.7	A	4.7	A	0.0	
6. Avenida Florencia/ Espola Rd	Poway	MSSC[d]	AM	23.1	C	24.7	C	1.6	No
			PM	23.0	C	25.8	D	2.8	
7. Valle Verde Rd/ Espola Rd	Poway	Signal	AM	49.2	D	53.0	D	3.8	No
			PM	21.7	C	22.6	C	0.9	
8. Valle Verde Rd/ St Andrews Dr	Poway	MSSC	AM	42.8	E	43.6	E	0.8	No
			PM	18.4	C	18.5	C	0.1	
9. Martincoit Rd/ Espola Rd	Poway	Signal	AM	11.2	B	23.4	C	12.2	No
			PM	7.3	A	15.6	B	8.3	
10. Cloudcroft Dr/ Espola Rd	Poway	MSSC	AM	29.5	D	32.7	D	3.2	No
			PM	18.8	C	20.2	C	1.4	
11. Old Coach Rd/ Espola Rd	Poway	Signal	AM	13.6	B	13.7	B	0.1	No
			PM	10.0	A	10.0	B	0.0	

Table 4.15-18. Horizon Year 2035 Intersection Operations

Intersection	Jur.	Control Type	Peak Hour	Horizon Year 2035		Horizon Year 2035 With Project		Δ [c]	Sig?
				Delay [a]	*LOS* [b]	*Delay*	*LOS*	Delay	
12. Espola Rd/ Lake Poway Rd	Poway	Signal	AM	19.4	B	20.4	C	1.0	No
			PM	15.0	B	15.0	B	0.0	
13. Espola Rd/Eden Grove	Poway	Signal	AM	46.9	D	48.1	D	1.2	No
			PM	12.6	B	12.7	B	0.1	
14. Espola Rd/ Twin Peaks Rd	Poway	Signal	AM	60.3	E	61.6	E	1.3	No
			PM	53.7	D	54.4	D	0.7	
15. Pomerado Rd/ Rios Rd	San Diego	Signal	AM	11.1	B	11.4	B	0.3	No
			PM	14.7	B	15.1	B	0.4	
16. Pomerado Rd/ Avenida La Valencia	San Diego	Signal	AM	10.8	B	11.0	B	0.2	No
			PM	19.4	B	20.5	C	1.1	
17. Pomerado Rd/ Stone Canyon Rd	San Diego	Signal	AM	123.6	F	**129.4**	**F**	**5.8**	**Yes**
			PM	130.0	F	**137.2**	**F**	**7.2**	
18. Pomerado Rd/ Bernardo Hts Pkwy	San Diego	Signal	AM	63.0	E	63.7	E	0.7	No
			PM	29.8	C	30.3	C	0.5	
19. Pomerado Rd/ Twin Peaks Rd	Poway	Signal	AM	68.9	E	69.8	E	0.9	No
			PM	87.7	F	88.3	F	0.6	
20. Avenida Florencia/ Avenida La Valencia	Poway	AWSC [e]	AM	7.6	A	7.6	A	0.0	No
			PM	7.7	A	7.7	A	0.0	
21. Del Norte/ Stone Canyon Rd	Poway	Signal	AM	19.0	B	19.2	B	0.2	No
			PM	17.2	B	17.2	B	0.0	
22. Martincoit Rd/ Stone Canyon Rd	Poway	MSSC	AM	9.9	A	10.0	A	0.1	No
			PM	7.9	A	7.9	A	0.0	
23. Boca Raton Ln/ Drwy "E"	Poway	DNE/ MSSC	AM	—	—	7.3	A	—	No
			PM	—	—	7.3	A	—	
24. Tam O'Shanter Dr/ Drwy 'A'	Poway	DNE/ MSSC	AM	—	—	7.3	A	—	No
			PM	—	—	7.3	A	—	
25. Tam O'Shanter Dr/Cloudcroft Dr	Poway	DNE/ MSSC	AM	—	—	7.3	A	—	No
			PM	—	—	7.3	A	—	

Source: Appendix J.

Notes: Sig = Significant impact, yes or no.; Jur. = Jurisdiction; DNE = Does not exist.

[a] Average delay expressed in seconds per vehicle.

[b] Level of service

[c] Δ denotes the increase in delay due to project.

[d] Two-way-stop-controlled intersection. Minor street left turn delay reported.

[e] All-way stop-controlled intersection. Average intersection delay reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

Table 4.15-19. Horizon Year 2035 Street Segment Operations

Street Segment	Jur.	Existing Capacity (LOS E) a	Horizon Year 2035			Horizon Year 2035 With Project			Project Volumes	Δ e v/c	Sig?
			ADT [b]	*LOS* [c]	*v/c* [d]	*ADT*	*LOS*	*v/c*			
Rancho Bernardo Rd											
1. W. Bernardo Dr to I-15 Southbound Ramps	Caltrans/ San Diego	40,000	52,600	F	1.315	52,701	F	1.318	101	0.003	No
2. I-15 Southbound Ramps to I-15 Northbound Ramps	Caltrans/ San Diego	50,000	49,200	D	0.984	49,932	D	0.999	732	0.015	No
3. I-15 Northbound Ramps to Bernardo Center Dr	Caltrans/ San Diego	50,000	41,600	D	0.832	42,560	D	0.852	960	0.020	No
4. Bernardo Center Dr to Bernardo Oaks Dr	San Diego	40,000	33,600	D	0.840	34,736	D	0.869	1136	0.029	No
5. Pomerado Rd to Summerfield Ln	San Diego	40,000	25,620	C	0.641	27,261	C	0.682	1641	0.041	No
Espola Rd											
6. Summerfield Ln to Avenida Florencia	Poway	41,000	26,100	C	0.637	27,766	D	0.678	1666	0.041	No
7. Avenida Florencia to Valle Verde Rd	Poway	41,000	26,000	C	0.635	27,767	D	0.678	1767	0.043	No
8. Valle Verde Rd to Martincoit Rd	Poway	41,000	20,710	C	0.506	22,427	C	0.547	1717	0.041	No
9. Martincoit Rd to Cloudcroft Dr	Poway	31,000	18,860	C	0.609	19,441	C	0.628	581	0.019	No
10. Cloudcroft Dr to Old Coach Rd	Poway	31,000	18,810	C	0.607	19,467	C	0.628	657	0.021	No
11. Old Coach Rd to Lake Poway Rd	Poway	31,000	15,930	C	0.514	16,587	C	0.536	657	0.022	No
12. Lake Poway Rd to Titan Wy	Poway	41,000	15,500	B	0.379	16,131	B	0.394	631	0.015	No
13. Titan Wy to Willow Ranch Rd	Poway	41,000	21,010	C	0.513	21,591	C	0.527	581	0.014	No
14. Willow Ranch Rd to Del Poniente Rd	Poway	29,000	21,010	D	0.725	21,591	D	0.745	581	0.020	No
15. Del Poniente Rd to Twin Peak Rd	Poway	29,000	21,010	D	0.725	21,591	D	0.745	581	0.020	No
16. Twin Peaks Rd to Ezra Ln	Poway	29,000	21,870	D	0.755	22,123	D	0.763	253	0.009	No
Pomerado Rd											
17. Pomerado Ct to Rancho Bernardo Rd	San Diego	40,000	30,000	D	0.750	30,202	D	0.756	202	0.007	No

Table 4.15-19. Horizon Year 2035 Street Segment Operations

Street Segment	Jur.	Existing Capacity (LOS E) a	Horizon Year 2035			Horizon Year 2035 With Project			Project Volumes	Δ e v/c	Sig?
			ADT [b]	*LOS* [c]	*v/c* [d]	*ADT*	*LOS*	*v/c*			
18. Rancho Bernardo Rd to Rios Rd	San Diego	40,000	25,800	C	0.645	26,103	C	0.653	303	0.009	No
19. Rios Rd to Avenida La Valencia	San Diego	40,000	28,200	C	0.705	28,529	C	0.714	329	0.010	No
20. Avenida La Valencia to Stone Canyon Rd	San Diego	40,000	30,520	D	0.763	30,874	D	0.772	354	0.010	No
Pomerado Rd (cont.)											
21. Stone Canyon Rd to Bernardo Heights Pkwy	San Diego	40,000	29,200	C	0.730	29,705	C	0.743	505	0.013	No
22. Bernardo Heights Pkwy to Gateway Park Rd	Poway	50,000	33,640	C	0.673	34,095	C	0.682	455	0.010	No
23. Gateway Park Rd to Monte Vista Rd	Poway	50,000	33,640	C	0.673	34,095	C	0.682	455	0.010	No
24. Monte Vista Rd to Twin Peaks Rd	Poway	50,000	31,700	C	0.634	32,155	C	0.644	455	0.010	No
25. Twin Peaks Rd to Ted Williams Pkwy	Poway	50,000	34,100	C	0.682	34,201	C	0.685	101	0.003	No
Bernardo Center Dr											
26. Bajada Rd to Rancho Bernardo Rd	San Diego	40,000	22,360	C	0.559	22,411	C	0.561	51	0.002	No
27. Rancho Bernardo Rd to Bernardo Plaza Ct	San Diego	40,000	24,080	C	0.602	24,207	C	0.606	127	0.004	No
Rios Rd											
28. Pomerado Rd to Summerfield Ln	San Diego	3,500	2,440	D	0.698	2,466	D	0.705	26	0.008	No
Summerfield Ln											
29. Rios Rd to Rancho Bernardo Rd	Poway	3,800	2,440	D	0.643	2,466	D	0.649	26	0.007	No
Avenida La Valencia											
30. Pomerado Rd to Avenida Florencia	Poway	3,800	3,150	E	0.829	3,176	E	0.836	26	0.008	No

Table 4.15-19. Horizon Year 2035 Street Segment Operations

Street Segment	Jur.	Existing Capacity (LOS E) a	Horizon Year 2035			Horizon Year 2035 With Project			Project Volumes	Δ e v/c	Sig?
			ADT [b]	*LOS* [c]	*v/c* [d]	*ADT*	*LOS*	*v/c*			
Avenida Florencia											
31. Rancho Bernardo Rd to Avenida La Valencia	Poway	3,800	740	A	0.195	841	A	0.222	101	0.027	No
Del Norte											
32. Avenida La Valencia to Stone Canyon Rd	Poway	3,800	450	A	0.119	526	A	0.139	76	0.020	No
Stone Canyon Rd											
33. Pomerado Rd to Ladera Piedra Way	Poway	14,000	5,010	A	0.358	5,162	A	0.369	152	0.011	No
34. Avenida Florencia to Martincoit Rd	Poway	14,000	3,320	A	0.238	3,396	A	0.243	76	0.005	No
Martincoit Rd											
35. Rancho Bernardo Rd to Stone Canyon Rd	Poway	14,000	2,770	A	0.198	2,871	A	0.206	101	0.008	No
Twin Peaks Rd											
36. World Trade Dr to Pomerado Rd	Poway	63,000	46,400	C	0.737	46,577	C	0.740	177	0.003	No
37. Pomerado Rd to Deerwood Dr	Poway	50,000	39,000	D	0.780	39,177	D	0.784	177	0.004	No
38. Tierra Bonita Rd to Espola Rd	Poway	50,000	26,700	C	0.534	27,029	C	0.541	329	0.008	No
Valle Verde Rd											
39. Espola Rd to St Andrews Dr	Poway	14,000	6,930	B	0.495	6,981	B	0.499	51	0.004	No
St Andrews Dr											
40. Valle Verde Rd to Tam O'Shanter Dr	Poway	3,800	1,690	C	0.445	1,741	C	0.459	51	0.014	No
Tam O'Shanter Dr											
41. St Andrews Dr to Pvt Dr "E"	Poway	3,800	1,690	C	0.445	1,716	C	0.452	26	0.008	No
42. Pvt Dr "E" to Cloudcroft Ct	Poway	3,800	490	A	0.129	541	A	0.143	51	0.014	No

Table 4.15-19. Horizon Year 2035 Street Segment Operations

Street Segment	Jur.	Existing Capacity (LOS E) a	Horizon Year 2035			Horizon Year 2035 With Project			Project Volumes	Δ e v/c	Sig?
			ADT [b]	*LOS* [c]	*v/c* [d]	*ADT*	*LOS*	*v/c*			
Cloudcroft Dr											
43. Cloudcroft Ct to Rancho Bernardo Dr	Poway	3,800	1,440	B	0.379	1,516	B	0.399	76	0.020	No
Bernardo Heights Pkwy											
44. Paseo Lucido to Pomerado Rd	San Diego	40,000	11,520	A	0.288	11,571	A	0.290	51	0.002	No
Lake Poway Rd											
45. East of Espola Rd	Poway	14,000	980	A	0.070	1,006	A	0.072	26	0.002	No
Titan Way											
46. West of Espola Rd	Poway	14,000	6,170	B	0.441	6,221	B	0.445	51	0.004	No

Source: Appendix J.
Notes: Jur = Jurisdiction; Sig = Significant impact, yes or no.
[a] Capacities based on City of Poway and City of San Diego Roadway Classification and LOS tables (See Appendix B of Appendix J).
[b] Average daily traffic
[c] Level of service
[d] Volume-to-capacity ratio
[e] Δ denotes a project-induced increase in the volume-to-capacity ratio

Table 4.15-20. Horizon Year 2035 Ramp Meter Analysis – Fixed Rate

Location	Peak Hour [a]	Horizon Year						
		Volume		*Peak Hour Demand (D)* [b]	*Meter Rate (R)* [c]	*Excess Demand (E) (veh)*	*Delay (min)*	*Queue (ft)*[d]
		SOV	*HOV*					
Rancho Bernardo Rd WB to I-15 Southbound (1 SOV+1 HOV)								
Horizon Year 2035	AM	570	64	570	492	79	9.6	1950
Horizon Year 2035 With Project	AM	595	66	595	492	103	12.6	2575
Project Increase	*AM*	*25*	*2*	*25*	*–*	*24*	*3.0*	*625*

Table 4.15-20. Horizon Year 2035 Ramp Meter Analysis – Fixed Rate

Location	Peak Hour [a]	Horizon Year						
		Volume		*Peak Hour Demand (D)* [b]	*Meter Rate (R)* [c]	*Excess Demand (E) (veh)*	*Delay (min)*	*Queue (ft)*[d]
		SOV	*HOV*					
Rancho Bernardo Rd WB to I-15 Northbound (1 SOV+1 HOV)								
Horizon Year 2035	PM	495	41	495	475	21	2.7	525
Horizon Year 2035 With Project	PM	502	41	502	475	27	3.4	675
Project Increase	*PM*	*7*	*–*	*7*	*–*	*6*	*0.7*	*150*

Source: Appendix J.
Notes: SOV = single-occupancy vehicle; HOV = high-occupancy vehicle.
Lane utilization factor accounted for in peak-hour demand calculation. (HOV percent observed from PeMS data).

[a] Selected peak hour based on period when ramp meter is operating.
[b] Peak-hour demand in vehicles/hour/lane for SOV and HOV lanes.
[c] Meter rate "R" is the most restrictive rate at which the ramp meter (signal) discharges traffic onto the freeway (obtained from Caltrans). The discharge rate varies during the peak hour depending on the mainline volumes.
[d] Queue calculated assuming vehicle length of 25 feet.

Table 4.15-21. Horizon Year Freeway Segment Operations

Freeway Segment	Dir.	Lanes[a]	Horizon Year 2035								Horizon Year 2035 + Project								Δ v/c[f]		Sig?
			Volume[b]		*v/c[c]*		*Density[d]*		*LOS[e]*		*Volume*		*v/c*		*Density*		*LOS*				
			AM	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	
Interstate 15																					
North of Rancho Bernardo Rd	NB	5M	6,630	10,153	0.698	1.069	24.4	>45.0	C	F	6,640	10,160	0.700	1.070	24.5	>45.0	C	F	0.002	0.001	No
	SB	5M	12,008	8,562	1.265	0.902	>45.0	36.2	F	E	12,014	8,576	1.265	0.903	>45.0	36.3	F	E	0.000	0.001	No
South of Rancho Bernardo Rd	NB	5M	7,706	9,659	0.812	1.017	30.2	>45.0	D	F	7,722	9,699	0.814	1.022	30.3	>45.0	D	F	0.002	0.005	No
	SB	5M	10,721	9,336	1.129	0.984	>45.0	43.3	F	E	10,748	9,356	1.132	0.985	>45.0	43.4	F	E	0.003	0.001	No

Source: Appendix J.

Notes: NB = northbound; SB = southbound; M = Mainline; Sig? = Significant impact, yes or no.

[a] Lane geometry taken from PeMS lane configurations at corresponding postmile.

[b] Existing volume calculated from most recent Caltrans Traffic Census Program Peak Hour Volume Data (2017, as cited in Appendix J). See Table 6–3 for K and D factors. Cumulative growth added to existing volumes to arrive at Horizon Year 2035.

[c] v/c = (peak hour volume/hourly capacity)

[d] Density measures passenger cars per mile per lane. Density = Flow Rate (passenger-cars/hour/lane) ÷ Speed (average passenger-car speed in mph).

[e] Level of service

[f] "Δ" denotes the project-induced increase in v/c. Per City Guidelines, a significant impact occurs when the v/c is increased by greater than 0.01 for LOS E or LOS F.

LOS	Density Range (pc/mi/ln)
A	0 – 11
B	> 11 – 18
C	> 18 – 26
D	> 26 – 35
E	> 35 – 45
F	> 45

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Pedestrian Mobility

As previously stated, pedestrian circulation throughout the study area is mainly provided by pathways and crossings. Few sidewalks are provided in the study area given the semi-rural character of the community. A pedestrian network inventory was conducted along street segments, which included documenting missing sidewalks, pedestrian barriers, and pedestrian pathways within the proposed project's sphere of influence.

Future Pedestrian Conditions

The City's Transportation Master Plan places an emphasis on reducing the dependence on automobile travel by enhancing the network of safe and direct walking routes within the City. The City's current inventory of existing and proposed trails amounts to approximately 60 miles of multi-use trails (hiking, bicycling, and equestrian). The overall goal of the trail system is to connect recreation areas, parks, open spaces, schools, residential and commercial areas, and equestrian facilities. LLG (Appendix J) conducted a review of the City's Master Transportation Plan, Espola Road Safety Improvement Project, and Capital Improvements Projects Status Report; as well as the City of San Diego's Pedestrian Master Plan, Rancho Bernardo Community Plan Circulation Element, and Rancho Bernardo Public Facilities Financing Plan FY 2014 to identify relevant local projects with planned pedestrian improvements (Table 4.15-22). Figure 4.15-2, Existing Pedestrian Network, also illustrates the future planned bicycle network.

Table 4.15-22. Planned Improvements – Pedestrian

Project Name	Source	Improvements	Funding
Espola Road Safety Improvements	Poway Master Transportation Element	Provide a multi-purpose trail on the west side of Espola Road from Mountain Road to Willow Ranch Road.	Fully Funded
Accessibility Compliance: Project T-9	Rancho Bernardo Public Facilities Financing Plan FY 2014	Curb Ramps, Audible Signals, and Installation of Sidewalks, based on ADA complaints within the Community.	Unidentified

Source: Appendix J.

Walkshed Analysis

A walkshed analysis was performed to evaluate project site connectivity. This analysis also identifies potential locations where providing pedestrian access could improve project site connectivity to surrounding area.

The walkshed analysis was performed by identifying all access points to/from the project site. From each access point, areas outside the project site that could be reached by walking 0.25 miles were identified. Selected walking routes from each access point consider the existence of crosswalks, pedestrian bridges, and other facilities. In this regard, while some areas are within the 0.25-mile buffer around the project site, they may not be reached by walking due to lack of facilities. After creating the walkshed network, the area that could be captured by walking was measured. A larger walkshed area (walkshed network) means higher connectivity between the project site and nearby areas.

As shown in Figure 4.15-9, Walkshed Analysis, the project site in general has good connectivity with the exception of limited walkability along St. Andrews Drive abutting the majority of the residential development within the project site where there are no direct access points.

In addition to sidewalks and trails, the Specific Plan requires traffic-calming measures to promote pedestrian safety and comfort and encourage walking as a preferred mode of travel (The Farm in Poway LLC 2020). Crosswalks would be provided throughout the project site in locations where trails and sidewalks meet vehicular traffic. These nodes require special design to ensure that vehicles are aware that pedestrians may be present. Crosswalk improvements would include enhanced paving treatments that make crossings more visible. Curb extensions, also known as bulb outs at key on-site intersections, where on-street parking is proposed and feasible, may be provided to reduce crossing length and improve pedestrian visibility. At the crosswalk at Espola Road and Martincoit Road that provides pedestrian access to adjacent neighborhoods, special safety features would be provided including enhanced paving, new signage and pedestrian signals, and smart or adaptive signals that can adjust signal phasing and extend pedestrian walk times based upon time of day. Overall, pedestrian facilities would be improved with implementation of the proposed project and impacts would be **less than significant**.

Bicycle Mobility

Bicycle mobility has become a prominent part of roadway networks today and will continue to evolve as a more viable option to auto use in many parts of San Diego. Improving bicycle connections in and around the project site is an important focus area for this study.

Future Bicycle Conditions

As stated in the future pedestrian conditions discussion, the City's Transportation Master Plan places an emphasis on reducing the dependence on automobile travel by enhancing the network of safe and direct walking routes within the City. LLG (Appendix J) conducted a review of the City's Poway Master Transportation Plan, Espola Road Safety Improvement Project, and Capital Improvements Projects Status Report; as well as the City of San Diego's Bicycle Master Plan, Rancho Bernardo Community Plan Circulation Element, and Rancho Bernardo Public Facilities Financing Plan FY 2014 to identify relevant local projects with planned bicycle mobility improvements (Table 4.15-23). For locations in which funding sources and completion schedules are unknown, improvements were not taken into account in the existing bike mobility analysis.

Table 4.15-23. Planned Improvements – Bicycle

Corridor	Source	Improvements	Schedule/Funding
Rancho Bernardo Road Between Bernardo Oaks Drive and West Bernardo Drive	San Diego Regional Bicycle Plan (2013)	The improvement will provide for a Class-II bike lane.	Unknown
Pomerado Road Between Rancho Bernardo and Pomerado Ct		The improvement will provide for a Class-II bike lane.	Unknown
Stone Canyon Road Between Del Norte and Martincoit Road	City of Poway Transportation Master Elements (2010)	The improvement will provide for a Class-III bike route.	Unknown
Martincoit Road Between Stone Canyon Road and Rancho Bernardo Road		The improvement will provide for a Class-III bike route.	Unknown

Table 4.15-23. Planned Improvements – Bicycle

Corridor	Source	Improvements	Schedule/Funding
Valle Verde Road Between Espola Road and Old Winery Rd		The improvement will provide for a Class-II bike lane.	Unknown
Espola Road Bike Lanes Between Range Park Road and Poway Road	Poway Adopted Financial Plan for FY 2018–2019	The improvement will widen the roadway to accommodate Class II bike lanes.	Unknown

Source: Appendix J.

Bikeshed Analysis

A bikeshed analysis was performed to evaluate site connectivity. This analysis also identifies potential locations where providing bicycle facilities could improve project site's connectivity to surrounding area.

The bikeshed analysis was performed by identifying all access points to/from the project site. From each access point, areas outside the project site that could be reached by bicycling for a conservative one-mile (or approximately 10 minutes) were identified. Selected bicycle routes from each access point consider the existence of bike routes, lanes, dedicated pathways, intersection crosswalks, bicycle/pedestrian bridges, and other facilities. In this regard, while some areas are within the one-mile buffer around the project site, they may not be reached by bike due to lack of facilities. The bikeshed analysis was conducted under existing and future conditions assuming planned improvements. A larger bikeshed area (bikeshed network) means higher connectivity between the site and nearby areas. As shown in Figure 4.15-10, Bikeshed Analysis, the project site, in general, has good connectivity to the surrounding community. This can be attributed to a good bicycle network both currently in place and planned for the future.

As detailed in the Specific Plan and illustrated in Figure 4.15-10, a variety of bicycle routes and connections would be provided as part of the proposed project. Multi-use trails would be shared between bicycles and pedestrians and private streets would be designed to allow for bicycles and vehicles to share the road with low-speed designs, and traffic-calming measures. Additional amenities that support bicycling within the proposed project area include required bicycle parking, staging areas, trail respite rest stops, and seating along the multi-use trail. The proposed project would also retrofit the intersection crossing at Espola Road/Martincoit Road and Espola Road/Valle Verde Road with high-visibility crosswalks to reduce bicycle/vehicle conflicts and provide bicycle signal detection. Overall, bicycle facilities and conditions would be improved with implementation of the proposed project. Impacts would be **less than significant**.

Transit Mobility

As previously discussed, a walkshed analysis was performed to evaluate project site connectivity. The walkshed analysis also identifies pedestrian accessibility to transit and locations where providing pedestrian access could improve project site connectivity to the transit network.

The walkshed analysis evaluates pedestrian access from the project site to nearby bus stations. The Poway Loop Route 945A is served by existing bus stops adjacent to the main access intersection of Espola Road/Martincoit Road. As previously mentioned, Route 945A runs on a loop route in counterclockwise direction passing through Espola Road, Pomerado Road, Poway Road, Midland Road, and Twin Peaks Road. Route 945A runs on weekdays from 6:36 a.m. to 8:25 a.m. departing from Pomerado Road/Rancho Bernardo Road, and from 2:35 p.m. to 4:34 p.m. departing from Midland/Poway Road. This route does not run on weekends or observed holidays. Table 4.15-24 identifies the amenities at the bus stations within the proposed project's walkshed.

Table 4.15-24. Amenities at Bus Stations Within Project Walkshed

Location	Shelters	Benches	Trash Receptacles	Station Signs	Maps/Wayfinding	Lighting	ADA Compliance
Espola Rd/Martincoit Rd	No	Yes	No	Yes	No	No	Yes
Espola Rd/Cloudcroft Dr	No	Yes	No	Yes	No	No	Yes

Source: Appendix J.

Although impacts to transit mobility would **be less than significant**, it is recommended that the proposed project work with MTS to improve and replace the existing stops on Espola Road on the northwest corner of the Espola Road/Martincoit Road/Private Street A intersection and the northwest corner of the Espola Road/Cloudcroft Drive intersection and adjust schedules, if needed, to meet the demands of new and existing riders.

School Zone Analysis

Several schools are located in the vicinity of study area intersections. Of particular importance is the proximity to Chaparral Elementary, the school assigned to residents of the proposed project, and Painted Rock Elementary, which is within close proximity of the main project access intersection of Espola Road/Martincoit Road.

The following supplementary analysis was conducted in order to determine if the project would have an impact on the circulation system during the school afternoon peak hour (1:45 p.m. to 3:45 p.m.), which represents the school end time. This timeframe falls outside of the commuter PM peak hour (4 p.m. to 6 p.m.). Analysis for the AM peak hour is not provided in this section because the school AM peak hour generally coincides with the commuter peak hours (7 a.m. to 9 a.m.). Analysis results for the AM school peak hour under Existing, Near-Term (Opening Year 2025), and Near-Term (Opening Year 2025) With Project conditions can be found in Sections 6.1 and 9.1 in Appendix J, respectively.

Recommendations for mitigation at significantly impacted locations are provided, where necessary, and recommendations for improved school safety are provided, ranging from traffic-calming measures to roadway and intersection signing and striping.

Traffic Volumes

As discussed, midday school peak-hour (1:45 p.m. to 3:45 p.m.) traffic volume counts were conducted at study area intersections located within the one-mile school buffer zones. Pedestrian and bicycle activity was also collected at these locations. The intersections selected for the school zone analysis are as follows:

- Espola Road/Summerfield Lane (Poway)
- Espola Road/Avenida Florencia (Poway)
- Espola Road/Valle Verde Road (Poway)
- Espola Road/Martincoit Road (Poway)
- Espola Road/Cloudcroft Drive (Poway)
- Espola Road/Titan Way/Eden Grove (Poway)
- Pomerado Road/ Rios Road (City of San Diego)
- Pomerado Road/ Avenida La Valencia (City of San Diego)
- Pomerado Road/ Bernardo Heights Pkwy (City of San Diego)

For purposes of being conservative, the PM peak hour for project-related traffic was assumed in the midday analysis. Project PM peak-hour volumes were added to existing and near-term conditions. The Near-Term (Opening Year 2025) midday volumes use the same annual growth factor applied to the PM peak hour condition.

Existing Analysis – School Peak Hour

Table 4.15-25 summarizes the intersection operations throughout the study area for the Existing scenario under school afternoon peak hour conditions. As seen in Table 4.15-25, all of the study intersections are calculated to operate at LOS C or better.

Near-Term (Opening Year 2025) Analysis – School Peak Hour

Table 4.15-26 summarizes the intersection operations throughout the study area for the Near-Term (Opening Year 2025) and Near-Term (Opening Year 2025) With Project scenarios under school afternoon peak hour conditions. As seen in Table 4.15-26, all of the study intersections are calculated to operate at LOS D or better.

Based on the applied significance criteria, no significant impacts were identified under Near-Term (Opening Year 2025) With Project conditions. Impacts would be **less than significant**.

Table 4.15-25. Existing Mid-Day Intersection Operations

Intersection	Jur.	Control Type	Peak Hour	Existing	
				Delay [a]	*LOS* [b]
5. Summerfield Ln/ Espola Rd	San Diego	Signal	Mid-day	5.6	A
6. Avenida Florencia/ Espola Rd	Poway	MSSC [c]	Mid-day	14.0	B
7. Valle Verde Rd/ Espola Rd	Poway	Signal	Mid-day	22.4	C
8. Valle Verde Rd/ St Andrews Dr	Poway	MSSC	Mid-day	18.8	C
9. Martincoit Rd/ Espola Rd	Poway	Signal	Mid-day	9.2	A
10. Cloudcroft Dr/ Espola Rd	Poway	MSSC	Mid-day	13.6	B
13. Espola Rd/Eden Grove	Poway	Signal	Mid-day	16.6	B
14. Espola Rd/ Twin Peaks Rd	Poway	Signal	Mid-day	27.6	C
18. Pomerado Rd/ Bernardo Heights Pkwy	San Diego	Signal	Mid-day	30.6	C
19. Pomerado Rd/ Twin Peaks Rd	Poway	Signal	Mid-day	32.5	C

Source: Appendix J.
Notes: Jur = Jurisdiction.
[a] Average delay expressed in seconds per vehicle.
[b] Level of service
[c] Minor street stop-controlled intersection. Minor street left-turn delay reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

Table 4.15-26. Near-Term Mid-Day Intersection Operations

Intersection	Jur.	Control Type	Peak Hour	Near-Term (Opening Year 2025)		Near-Term (Opening Year 2025) With Project		Δ [c] Delay	Sig?
				Delay [a]	*LOS* [b]	*Delay*	*LOS*		
5. Summerfield Ln/ Espola Rd	San Diego	Signal	Mid-day	5.6	A	5.6	A	0.0	No
6. Avenida Florencia/ Espola Rd	Poway	MSSC [d]	Mid-day	14.3	B	15.5	C	1.2	No
7. Valle Verde Rd/ Espola Rd	Poway	Signal	Mid-day	23.4	C	24.4	C	1.0	No
8. Valle Verde Rd/St Andrews Dr	Poway	MSSC	Mid-day	19.6	C	19.8	C	0.2	No
9. Martincoit Rd/ Espola Rd	Poway	Signal	Mid-day	9.3	A	19.1	B	9.8	No
10. Cloudcroft Dr/ Espola Rd	Poway	MSSC	Mid-day	13.9	B	14.7	B	0.8	No
13. Espola Rd/Eden Grove/ Titan Way	Poway	Signal	Mid-day	16.9	B	16.9	B	0.0	No
14. Espola Rd/Twin Peaks Rd	Poway	Signal	Mid-day	29.5	C	29.9	C	0.4	No
18. Pomerado Rd/ Bernardo Hts Pkwy	San Diego	Signal	Mid-day	33.2	C	33.8	C	0.6	No
19. Pomerado Rd/Twin Peaks Rd	Poway	Signal	Mid-day	35.8	D	37.4	D	1.6	No

Source: Appendix J.
Notes: Sig = Significant impact, yes or no; Jur. = Jurisdiction.
[a] Average delay expressed in seconds per vehicle.
[b] Level of service
[c] Δ denotes the increase in delay due to proposed project.
[d] Minor street stop-controlled intersection. Minor street left turn delay reported.

SIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 ≤ 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
≥ 80.1	F

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 ≤ 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
≥ 50.1	F

Access Assessment

Vehicular access is primarily proposed at the Espola Road/Martincoit Road/Private Street A intersection. Secondary access is proposed at three additional locations: (1) Boca Raton Lane/Private Street E, (2) Tam O'Shanter Drive/Private Street A, and (3) Cloudcroft Drive/Cloudcroft Court. Gated emergency access is proposed on Espola Road west of the main access intersection. Currently, the Espola Road/Martincoit Road intersection is signalized. The project proposes to construct the fourth leg of this intersection complete with dedicated southbound left-turn lane and shared southbound through/right-turn lane. The northbound approach on Martincoit Road would be restriped to provide a dedicated left-turn lane and shared through/right-turn lane. The intersection would be controlled by protected left-turn phasing. All other access points from the proposed project (secondary access points) would be controlled by stop signs. The geometry at the secondary access points would provide shared left-turn/through lanes and shared right-turn/through lanes on the public roadways with shared left-turn/right-turn lanes exiting the project site. One inbound lane would be provided on the private streets.

Traffic Volumes

Figure 4.15-6 shows the general distribution of project trips on Espola Road, with 70 percent of trips distributed to/from the west and 26 percent to/from the east. Traffic volumes at project access intersections are shown in their respective sections earlier in this report.

The main access serves the majority of non-residential and residential uses within the project site. The secondary access intersections at Cloudcroft Court, Private Street E, and Private Street A were assumed to each serve one percent of project traffic given the majority of the uses in the northern portion of the project are agrarian, open space, and low trip generators (Table 4.15-27).

Table 4.15-27. Site Access

Access Location	Land Uses Served	Trip Distribution
Main Access Espola Road/Martincoit Road/Private Street A	Residential and Non-Residential	97% of project trips
Secondary Access Tam O'Shanter Drive/Private Street A	Community Gardens, Agrifields, Open Space	1% of project trips
Secondary Access Boca Raton Lane/Private Street E	Community Gardens, Agrifields, Open Space	1% of project trips
Secondary Access Cloudcroft Drive/Cloudcroft Court	Residential, Community Gardens and Open Space	1% of project trips

Source: Appendix J.

Access Analysis

Table 4.15-28 summarizes the results of the project access intersection analysis. With the proposed improvements to the project access intersections, LOS B or better operations are calculated under all Plus Project scenarios.

Table 4.15-28. Project Access Intersection Operations

Intersection	Proposed Control Type	Peak Hour	Near-Term (Opening Year 2025) With Project		Year 2035 With Project	
			Delay [a]	*LOS* [b]	*Delay*	*LOS*
9. Espola Road/Martincoit Road/ Private Street A	Signal	AM	20.7	C	23.4	C
		PM	15.3	B	15.6	B
23. Cloudcroft Drive/Cloudcroft Court	MSSC [c]	AM	7.3	A	7.3	A
		PM	7.3	A	7.3	A
24. Boca Raton Lane/Private Street E	MSSC	AM	7.3	A	7.3	A
		PM	7.3	A	7.3	A
25. Tam O'Shanter Drive/Private Street A	MSSC	AM	7.3	A	7.3	A
		PM	7.3	A	7.3	A

Source: Appendix J.
Notes:
[a] Average delay expressed in seconds per vehicle.
[b] Level of service
[c] Minor street stop-controlled. Minor street left-turn delay reported.

SIGNALIZED		UNSGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

Emergency Access

Emergency vehicle access is provided via Cloudcroft Court and Cloudcroft Drive and within proposed private streets. Emergency medical services, including ambulance transportation, are provided by the City as part of the Poway Fire Department operations. The nearest emergency facility, Palomar Medical Center, is located 3.5 miles away from the proposed project on Pomerado Road. The nearest fire station to the project site is located less than one-half-mile east, on Westling Court, just off Espola Road. Response time to the furthest planned home within the site is well within the response time goal, of within six minutes 90 percent of the time, maintained by the Poway Fire Department, per the Specific Plan (Canavan, pers. comm. 2019). Impacts regarding site access or emergency access would be **less than significant**.

VMT Analysis

Although the City has not yet adopted VMT guidelines, a VMT analysis was conducted given forthcoming changes to CEQA. Prior to any detailed VMT analysis, OPR and the San Diego ITE SB 743 Subcommittee guidelines recommend "screening thresholds" to help identify if a project is expected to result in a less-than-significant impact. To that end, the proposed project was reviewed. Specifically, the surrounding land uses, population density, transportation infrastructure, and project-specific design was considered. These elements,

collectively, shape mobility behavior and provide a strong indication of expected project VMT. In general, higher density and mix of land uses with access to mobility options are expected to generate lower VMT. Appendix J of this EIR summarizes the key elements relative to the proposed project.

Proximity to Transit

Public transportation improves mobility and reduces congestion in the community and the region. Per the significance criteria, if a project is within one-half mile of a major transit stop or a stop along a high-quality transit corridor, it should be presumed to have a less-than-significant impact on VMT. This presumption would not apply, however, if project-specific or location-specific information indicates that a project would still generate significant levels of VMT. A transit stop can include a planned and funded stop that is included in an adopted regional transportation improvement program.

For the proposed project, bus service is provided by MTS, with stops along Espola Road fronting the project site. Route 945A runs on a loop route in counterclockwise direction passing through Espola Road, Pomerado Road, Poway Road, Midland Road, and Twin Peaks Road. Route 945A runs on weekdays from 6:36 a.m. to 8:25 a.m. departing from Pomerado Road and Rancho Bernardo Road and 2:35 p.m. to 4:34 p.m. departing from Midland Road and Poway Road. This route operates with two morning routes and two afternoon routes. This route does not run on weekends or observed holidays.

Improvements to overall transit access for the project site are recommended through coordination with MTS to improve and replace the existing stop(s) on Espola Road on the northwest corner of the Espola Road/Martincoit Road/Private Street A intersection and/or the northwest corner of the Espola Road/Cloudcroft Drive intersection and adjust schedules, if needed, to meet the demands of new and existing riders.

City of Poway VMT

The City of Poway baseline VMT was developed first through population data obtained from U.S. Census Bureau – American Community Survey (U.S. Census Bureau 2017, as cited in Appendix J). This information is provided via the SANDAG Data Surfer publicly available website. The average trip lengths were GPS-based and represent a data size of approximately 31,200 devices over the course of one year. Table 4.15-29 summarizes the data utilized and the resultant existing baseline City of Poway VMT per capita.

Table 4.15-29. City of Poway – Existing Baseline VMT/Capita

Area	City Population (Residents & Employees)	Regional Person Trip Rate per Capita (Daily)	Auto Mode Split Total	Daily Auto Trips (roundtrip)	Average Auto Trip Length (one-way, miles)	Total Daily VMT	City VMT per Capita	Significance Threshold (85% of Existing)
City of Poway	49,981	3.50	88.0%	145,545	8.5	1,237,133	24.8	21.0

Source: Appendix J.
General Notes:
Populations and auto mode splits obtained from US Census Bureau data - American Community Survey (ACS) 2017
A person trip rate per capita of 3.5 was assumed based on a review of available information. The lower the trip rate directly translates to a lower City threshold and therefore represents a conservative approach. The SANDAG Regional Transportation Study identifies and average of 4.3 daily trips per person. NCHRP Research Report 868 - Cell Phone Location Data for Travel

Behavior Analysis, 2018 reports Call Detail Records (CDR) are estimated to generate 3.5 daily person trips per Capita and the FHWA Travel Model Validation and Reasonableness Checking Manual, 2010 estimates 4.0 daily person trips per Capita.
Mode splits (SOV: drive alone & HOV: carpool) obtained from US Census Bureau data - American Community Survey (ACS) 2017. Auto mode share calculated at 80% SOV and 8% HOV for a total of 88%. Vehicle Occupancy Ratio (VOR) was assumed to be 1.0 persons per vehicle for SOV and 2.5 persons per vehicle for HOV. The 2.5 HOV VOR was assumed given a minimum of 2 persons per vehicle is the required number of passengers to use the HOV lane, and the expectancy that greater than 2 persons per vehicle would be traveling in the HOV lane as well.
Average Trip Lengths based on GPS data obtained from daily, weekday trip data for a one-year time period between March 2018 and February 2019. The total data sample size is approximately 31,200. This represents trip-based travel patterns (and not tour-based travel patterns).
Total VMT = Daily Auto Trips (roundtrip) x Average Auto Trip Length (one-way)
VMT per Capita = Total VMT / Total Population
Significance threshold is 85% of the City VMT per capita (24.8 x 85% = 21.0)

Project VMT

Similar to the City calculations, the project VMT per capita was determined. The first method uses StreetLight Data to calculate the project VMT under baseline conditions. The proposed project was categorized into land use types that include Residential, Health Club, Entertainment, Restaurant, Agricultural, and Park and Trails. Given the project site is occupied by a decommissioned golf course, proxy sites in the immediate vicinity with similar characteristics were used to determine average trip lengths using Navigation GPS Analytics. Average trip lengths were based on GPS data obtained from daily, weekday trip data for a one-year time period between March 1, 2018, and February 28, 2019. The total data sample size is approximately 2,000 devices. Appendix J contains the existing project VMT calculations.

The proposed project population estimates were used along with the trip generation estimates for auto mode splits and daily auto trips. As shown in Table 4.15-30, the project VMT per capita is calculated at 19.0, which is below the proposed threshold of significance of 21.0.

Table 4.15-30. The Farm in Poway – Project VMT/Capita

Land Use Type	Site Population Estimate	Daily Auto Trips (roundtrips)	Average Trip Length (one-way, miles)	Total VMT	VMT per capita
The Club [a] Pool/4 tennis courts, 16 pickleball courts/Multi-Purpose Room	69	155	6.3	974	14.2
Social @ The Gardens [b] Café/Coffee/Wine & Beer Garden	183	412	4.7	1938	10.6
The Barn [c] Wedding Venue/Music Venue/ Multi-Purpose Room	81	182	6.3	1147	14.2
Programmed Open Space Recreation [d] The Butterfly Farm Vivarium/Greenhouse, Classroom, Picnic Area, Tot Lot, Dog Park, Community Gardens, Trails	98	222	5.0	1108	11.3
Agrifields [e]	7	15	4.3	63	9.4
Unprogrammed Open Space Conservation [f] *Tranquility Garden, Ornamental Landscape*	89	202	5.4	1090	12.3
Residential *160 Dwelling Units*	531	1337	10.3	13768	25.9
Total	—	**2,524**	—	**20,099**	**19.0**

Source: Appendix J.

General Notes:

Residential population was obtained from proxy site data showing average occupancy of 3.32 persons per unit.

The Club population was obtained from SANDAG population estimates: Code 7214 for "Recreational/Racquetball Club". See Appendix N of Appendix J on population estimate calculations.

The Social at the Gardens population was obtained from SANDAG population estimates: Code 5012 for "Quality Restaurant". See Appendix N of Appendix J on population estimate calculations.

The Barn population was obtained from SANDAG population estimates: Code 7202 for "Recreational/Arena". See Appendix N of Appendix J on population estimate calculations.

The Programmed Park population was obtained from SANDAG population estimates: Code 6895 for "Middle School". This use was selected given the classroom characteristics of the Butterfly Vivarium and greenhouse programming. See Appendix N of Appendix J on population estimate calculations.

The agrifields and Unprogrammed Park populations were estimated using the ADT generation.

Average vehicle occupancy rate (VOR) for this area is calculated to be 1.14 persons per vehicle.

Population estimates that were derived from Trip Generation assumes one full trip includes and inbound and an outbound trip.

Daily Auto Trips assumes a 15% internal / mixed use reduction

Average Trip Lengths based on GPS data obtained from daily, weekday trip data for a one-year time period between March 1 2018 and February 28, 2019. The total data sample size is approximately 2,000 devices.

Total SB743 VMT = Daily Auto Trips (roundtrip) x Average Auto Trip Length (one-way)

VMT per capita = Total VMT / Total Population

4.15.4.1 CEQA Impacts

Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

As shown in Table 4.15-31, based on the City of Poway and City of San Diego significance thresholds and the analysis methodology, project-related and cumulative traffic is calculated to result in one potentially significant auto-related impact. Direct impacts were calculated where project-added traffic resulted in a degradation in measures of effectiveness above the allowable thresholds in the Near-Term (Opening Year 2025) conditions. Cumulative impacts were calculated where project-added traffic resulted in a degradation in measures of effectiveness greater than the allowable thresholds in the Horizon Year 2035 condition. The impacts would be **potentially significant**.

Table 4.15-31. Impact Summary Table

Impact	Location	Jur.	Near-Term (Opening Year 2025)		Horizon Year 2035
			Near-Term With Project	*Near-Term With Project (School Zone Mid-Day Analysis)* [a]	*Horizon Year 2035 With Project*
1	***Intersection #17.*** Pomerado Road/Stone Canyon Road	Poway	Direct (**Impact TRA-1**)	None	Cumulative (**TRA-CU-1**)

Source: Appendix J.
Notes: MM = Mitigation Measure; Jur. = Jurisdiction.
[a] The Near-Term With Project (School Zone Mid-Day Analysis) analyzes the 1:45-3:45 PM peak hour, which represents the school end time. Analysis for the AM peak hour generally coincides with the AM commute peak hour (7 a.m. to 9 a.m.).

Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Per CEQA Guidelines Section 15064.3, analysis criteria detailed in this CEQA Guidelines section does not apply until July 1, 2020, unless adopted earlier by the lead agency (see also, CEQA Guidelines Section 15007[c]). While the use of VMT as a criteria for analyzing transportation impacts is not yet applicable to the proposed project, per CEQA Guidelines Section 15064.3, a VMT analysis is included above for informational purposes.

As shown in Table 4.15-29, City of Poway – Existing Baseline VMT/Capita, the "trip-based" City of Poway baseline VMT per capita was calculated as 24.8 miles. For the purpose of determining the significance of VMT impacts, the project VMT per capita would need to be 85 percent below the Citywide average, which equates to 21.0 VMT per capita.

The proposed project would generate a total of 2,524 trips with a total of 20,099 VMT. Considering the proposed project would generate approximately 1,058 residents, the project VMT per capita would be 19.0. As shown in Table 4.15-30, The Farm in Poway – Project VMT/Capita, the project VMT per capita of 19.0 is lower than the Citywide average VMT per capita threshold of 21.0. This is below 85 percent of the City of Poway baseline VMT per capita rate of 24.8. Therefore, based on the applied significance criteria, potential impacts caused by the project VMT would be **less than significant.**

While the use of VMT as a criteria for analyzing transportation impacts is not yet applicable to the proposed project, per CEQA Guidelines Section 15064.3, a VMT analysis has been included for informational purposes.

Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No potentially hazardous roadway design features (e.g., sharp curves, dangerous intersections) are proposed as part of the project. The installation and maintenance of sight-distance corridors would ensure that unobstructed line of sight is available on the approach to proposed project intersections and driveways to maximize the length of roadway visible to motorists. A multi-purpose trail on the property's frontage along Espola Road is one of several planned improvements designed to enhance safety for bicyclists and pedestrians (see Appendix J for further details). The project proposes to improve safety and operations on Espola Road by removing the asphalt sidewalk along the northerly edge of the roadway fronting the project site, and replacing it with a meandering trail separated from the roadway by a landscape buffer. Signage, ground markings, and speed reduction measures would be implemented to help manage travel speeds and enhance pedestrian safety. Additionally, all streets within the project site would include sidewalks on one side of the street and would include enhanced pedestrian crossings. Separate pedestrian phases at signalized intersections to enhance safety and raise driver awareness would also be provided. Compliance with Engineering Standards, safety-related policies, and incorporation of the proposed project's TDM measures and transportation-related project design features would ensure that the impacts of the proposed project relative to traffic hazards would be **less than significant**.

Would the project result in inadequate emergency access?

Currently, the Espola Road/Martincoit Road intersection is signalized. The project proposes to construct improvements to this intersection. Two emergency vehicle access (EVA) points would also be provided (See Figure 3-4, Conceptual Street Network); see also Chapter 3, Project Description, of this EIR. One EVA would take direct access from Cloudcroft Drive, and the second would take access from Cloudcroft Court, via Cloudcroft Drive. The Cloudcroft Court EVA point would also provide maintenance access for the San Diego County Water Authority right-of-way. The EVA points would be controlled by bollards to prevent public access. As part of the construction and occupancy permitting process, emergency access throughout the site would be reviewed for consistency with and adherence to standards identified in applicable regulatory documents including but not limited to the Uniform Building Code and California Fire Code. In addition, structures would be inspected by emergency responder entities including the fire department. Therefore, impacts regarding site access and/or emergency access would be **less than significant**.

The proposed project's impacts to transportation are listed as follows:

Impact TRA-1 The proposed project would exacerbate LOS F during the AM/PM peak hours at Intersection 17, Pomerado Road/Stone Canyon Road.

4.15.5 Cumulative Impacts

Cumulative impacts were calculated where project-added traffic resulted in a degradation in measures of effectiveness greater than the allowable thresholds in the Horizon Year 2035 condition. As shown in Table 4.15-31, Impact Summary Table, cumulative impacts would occur at Intersection 17 (**Impact TRA-CU-1**) in the Horizon Year 2035 Plus Project scenario. Cumulative impacts would be **potentially significant**.

Cumulative impacts related to VMT would be less than significant because, as previously stated, the project's generated VMT is below 85 percent of the City of Poway baseline VMT per capita rate of 24.8. Therefore, based on the applied significance criteria, the proposed project would not contribute to a cumulatively considerable impact relative to VMT and impacts would be **less than significant.**

The proposed project's potential cumulative impacts to transportation are listed as follows:

Impact TRA-CU-1 The proposed project would exacerbate LOS F during the AM/PM peak hours at Intersection 17, Pomerado Road/Stone Canyon Road.

4.15.6 Project Design Features

As part of the proposed project, the project design features identified in Table 4.15-32 would be incorporated in order to improve intersection, pedestrian mobility, bicycle mobility, and site access.

Table 4.15-32. Project Design Features

Location	Project Design Features
Intersections	
PDF-TRA-1	***Intersection #9.*** Espola Road/Martincoit Road/ Private Street A – Construct the north leg of the intersection and provide one dedicated left-turn lane, and a shared through/right-turn lane. Provide protected traffic signal phasing in the north/south directions and protected left-turn phasing in the east/west directions. Restripe the south leg (northbound approach) to provide a left-turn lane and shared through/right-turn lane.
PDF-TRA-2	***Intersection #23.*** Cloudcroft Drive/Cloudcroft Court – Install stop signs on the project access road to control movements egressing the site. Provide a shared left-turn/right-turn lane.
PDF-TRA-3	***Intersection #24.*** Boca Raton Lane/Private Street E: Install a stop sign on the project access road (Private Street E) to control movements egressing the site. All turn lanes will be shared with through movements.
PDF-TRA-4	***Intersection #25.*** Tam O'Shanter Drive/Private Street A: Install a stop sign on the project access road (Private Street A) to control movements egressing the site. All turn lanes will be shared with through movements.
PDF-TRA-5	Project design on all on-site roadways shall be designed to accommodate Neighborhood Electric Vehicles/Low Speed Vehicles (i.e., small electric or gas-powered cars designed for low-speed, local trips in areas such as planned communities). Additional detail regarding these vehicles is provided in Section 15, Alternative Vehicles, of Transportation Impact Analysis – The Farm in Poway.
PDF-TRA-6	The proposed project shall implement Intelligent Transportation Systems strategies including traffic signal coordination, Emergency Vehicle Preemption, detection sensors, Adaptive Traffic Control, and Transit Signal Priority for MTS bus service. Implementation of Intelligent Transportation System strategies shall be according to the Cities of Poway and San Diego requirements and may require communications upgrades between the traffic signals, upgrades to vehicle detection and system implementation at the controller cabinets. Remote link to Traffic Management Centers may also be required.

Source: Appendix J.
Note: PDF = project design feature.

4.15.7 Mitigation Measures

The following mitigation measure would help to reduce impacts associated with Intersection 17 under both the Near-Term Plus Project (2025) scenario (**Impact TRA-1**), and the Horizon Year Plus Project (2035) Scenario (**Impact TRA-CU-1**):

MM-TRA-1 ***Intersection 17****. Pomerado Road/Stone Canyon Road* – Prior to Certificate of Occupancy, the proposed project shall modify the traffic signal to provide east/west split phasing.

4.15.8 Level of Significance After Mitigation

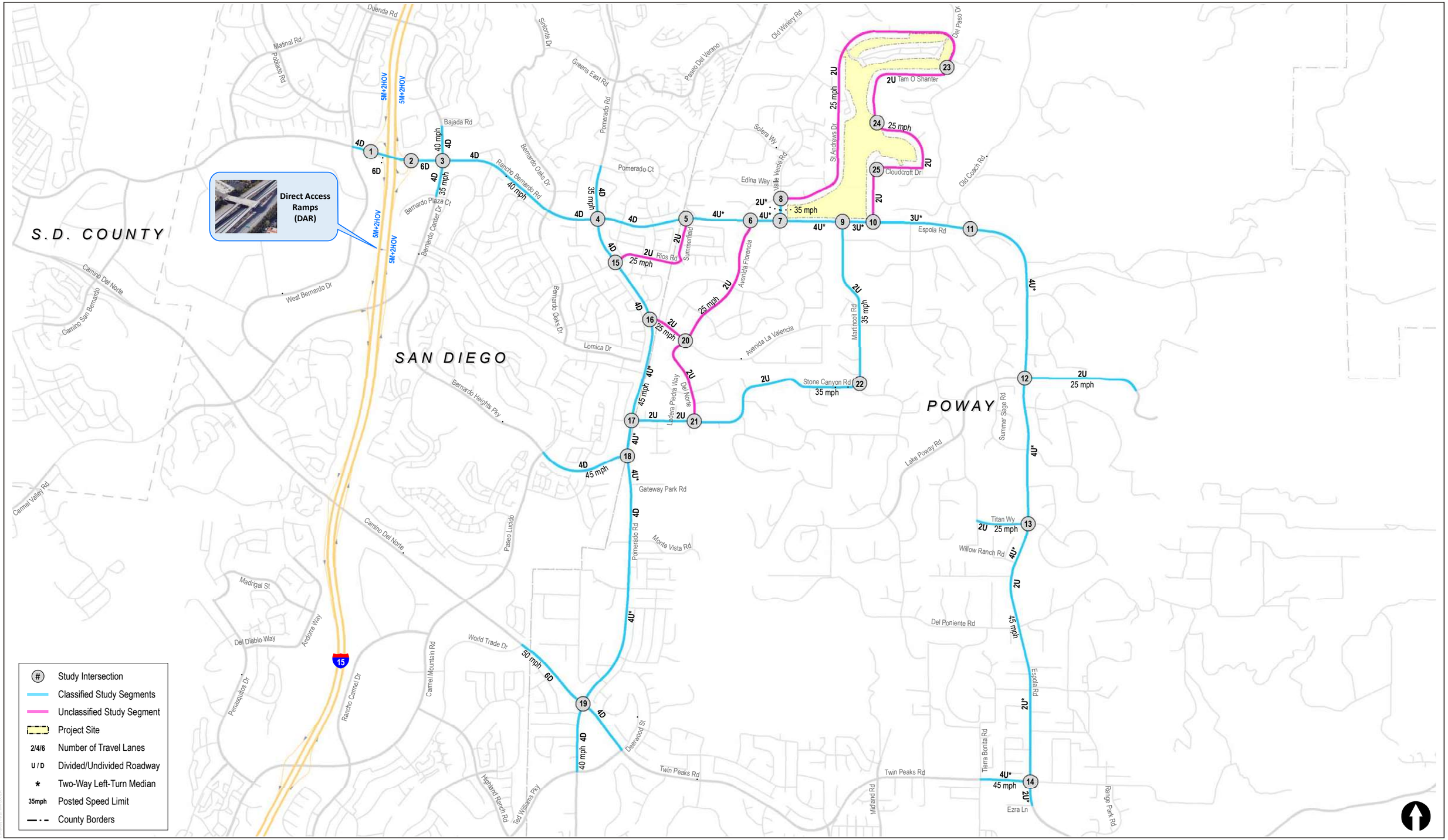
Table 4.15-33 summarizes the pre- and post-mitigation LOS at the significantly impacted intersections for the Near-Term (Opening Year 2025) and Horizon Year 2035 scenarios. The mitigation proposed for Near-Term (Opening Year 2025) direct impacts also mitigates the Horizon Year 2035 cumulative impacts. As shown below, Impact TRA-1 and Impact TRA-CU-1 would be reduced to **less than significant** with implementation of mitigation (MM-TRA-1).

Table 4.15-33. Post-Mitigation Analysis

MM#	Location	Jur.	Control Type	Scenario	Peak Hour	Pre-Mitigation Operations [a]				Post Mitigation Operations	
						Without Project		*With Project*			
						Delay [b]	*LOS* [c]	*Delay*	*LOS*	*Delay*	*LOS*
TRA-1	***Intersection #17.*** Pomerado Road/ Stone Canyon Road	Poway	Signal	Near-Term (OY 2025)	AM	99.6	F	105.7	F	17.6	B
					PM	90.5	F	97.6	F	21.5	C
				Horizon Year 2035	AM	123.6	F	129.4	F	24.1	C
					PM	130.0	F	137.2	F	43.7	D

Source: Appendix J.
Notes: MM# = Mitigation measure number; Jur. = Jurisdiction; OY = Opening Year.
Mitigation provided for locations currently operating at LOS E or F are required to improve operations to better than or equal to pre-project conditions only.

[a] Average delay expressed in second per vehicle.
[b] Level of service.
[c] Minor-street stop-controlled intersection. Under pre-mitigation operations, the southbound left-turn delay is reported. With the proposed mitigation to prohibit southbound left-turns, the southbound right-turn delay is reported in the post-mitigation operations.



SOURCE: Lindscott Law & Greenspan, Engineers, 2019

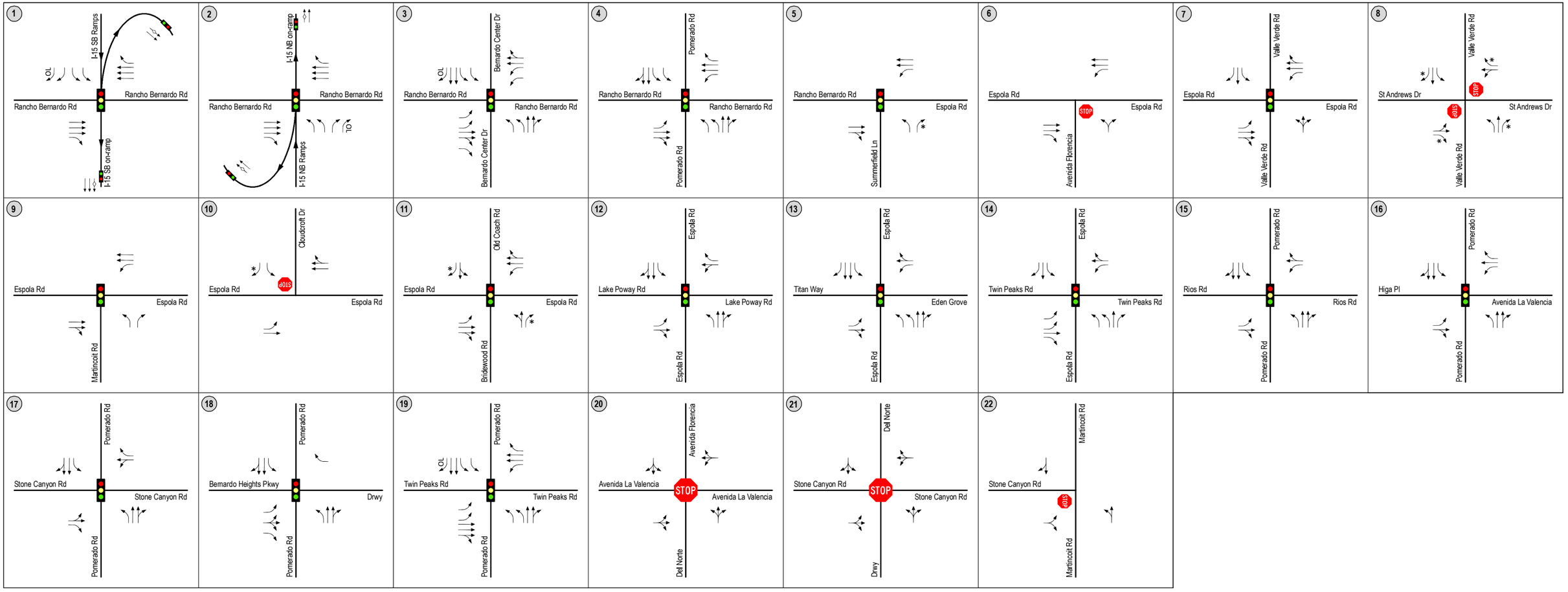
FIGURE 4.15-1a

Existing Conditions Diagram

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

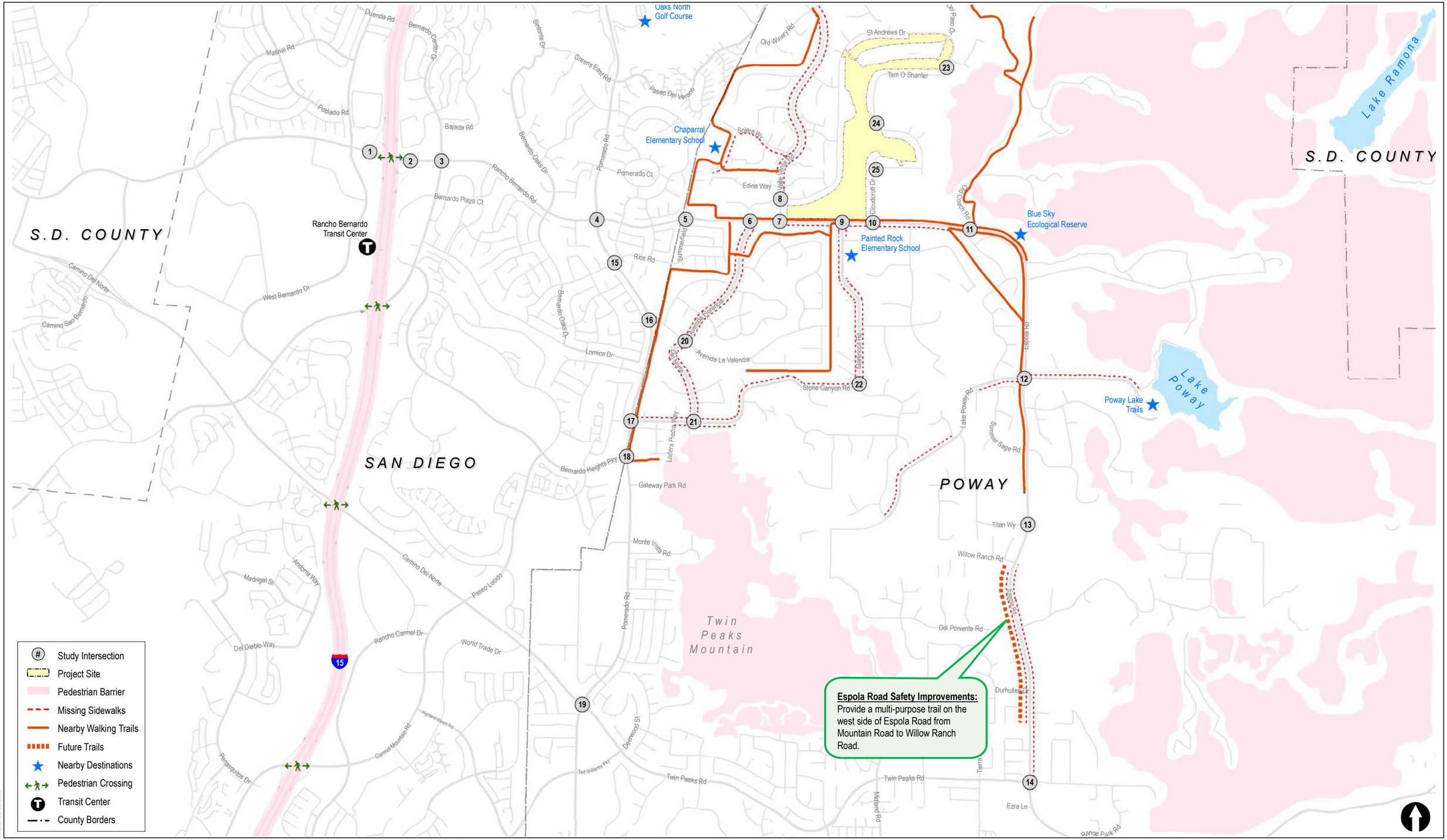
FIGURE 4.15-1b

Existing Conditions Diagram

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

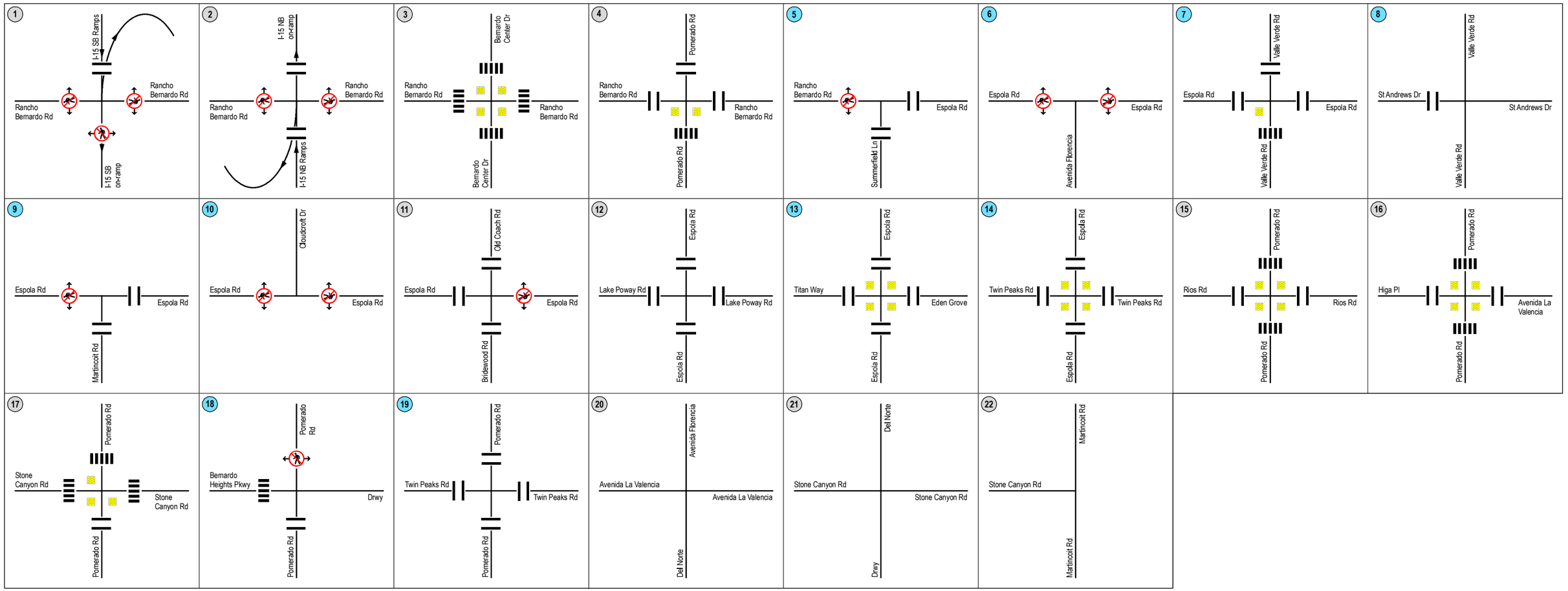
FIGURE 4.15-2a

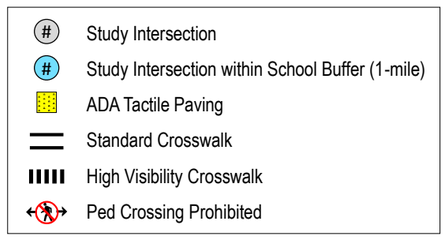
Existing Pedestrian Network

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

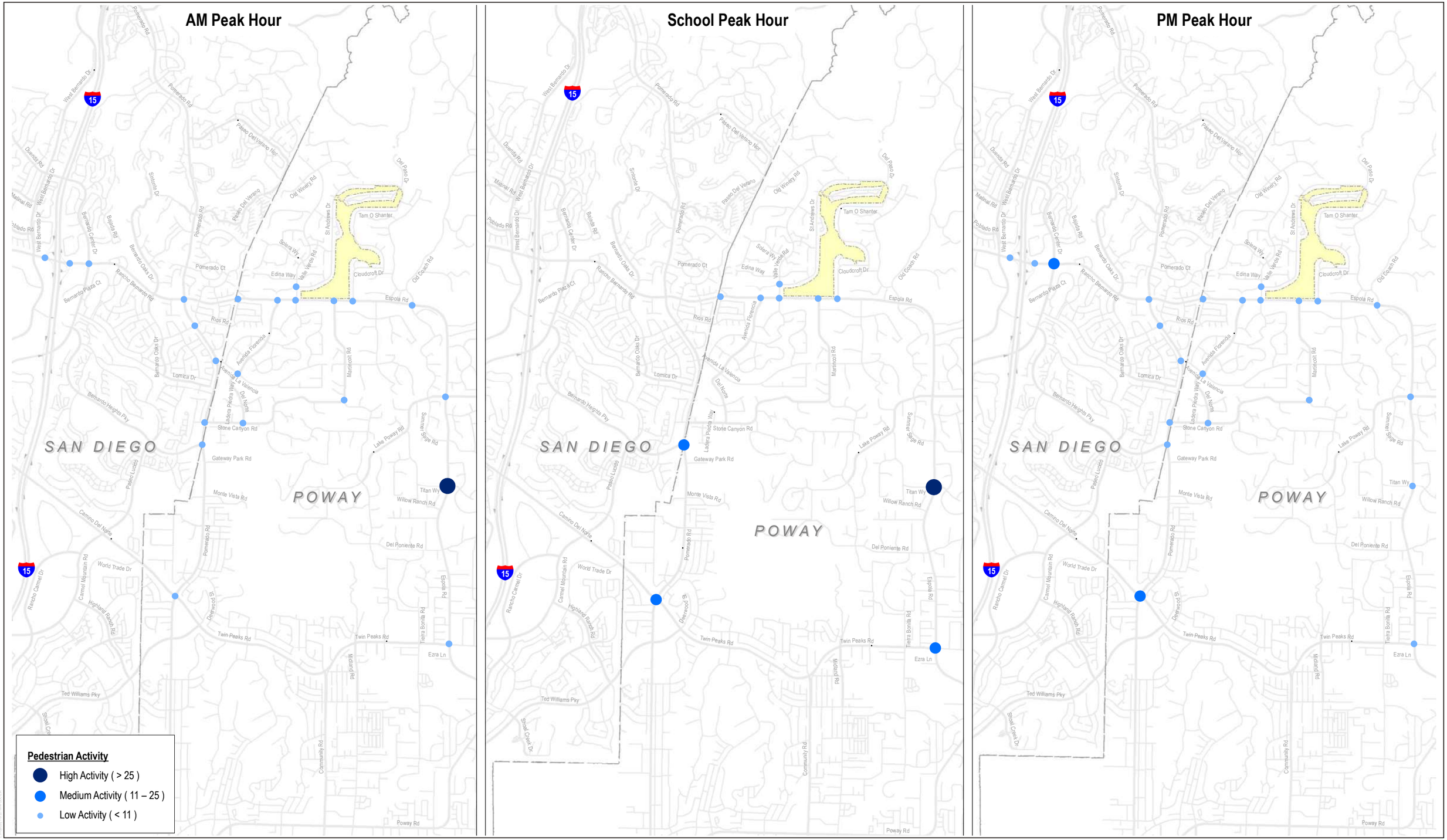
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FIGURE 4.15-2b

Existing Pedestrian Network

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

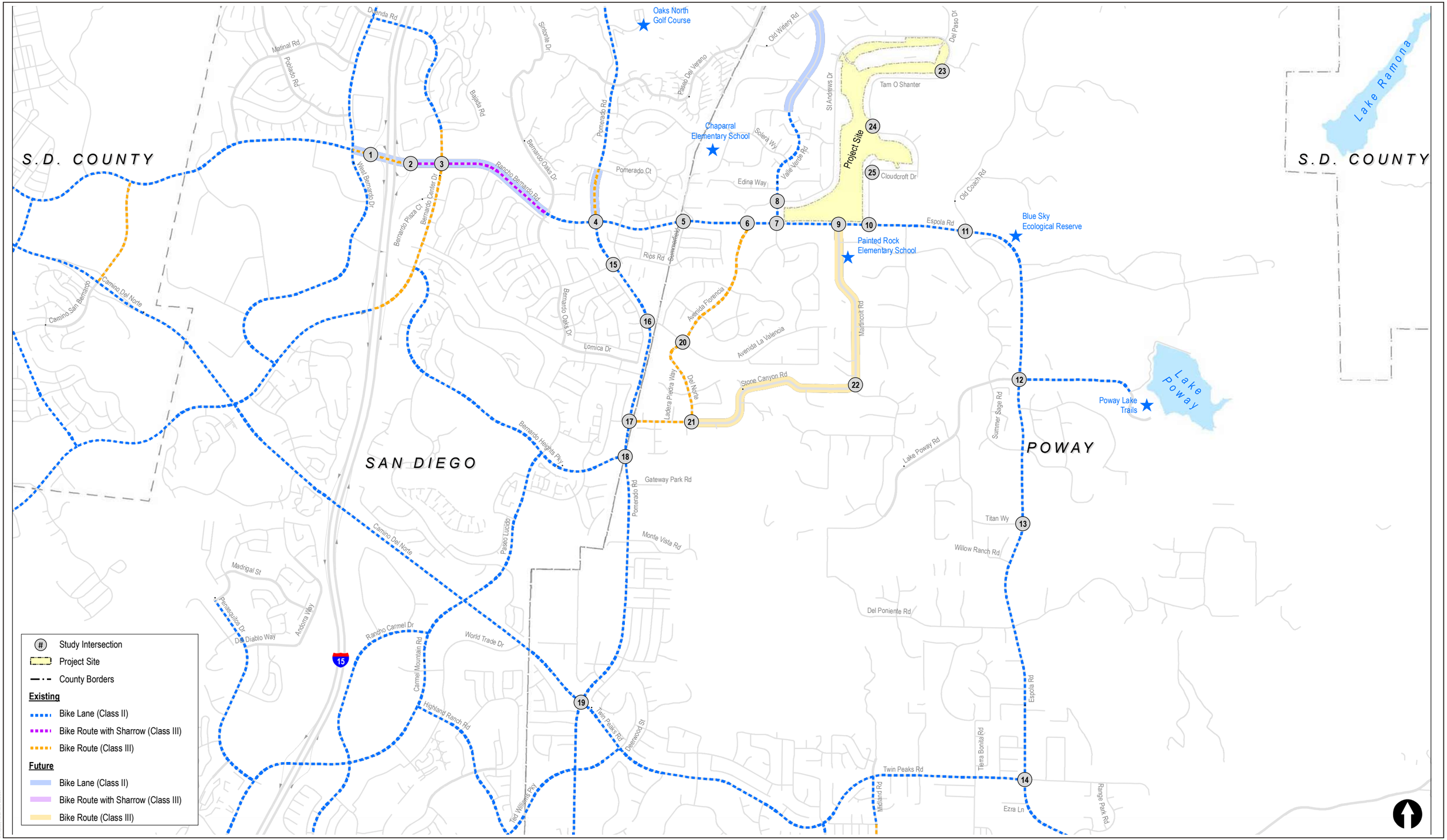
FIGURE 4.15-3

Existing Pedestrian Demand

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

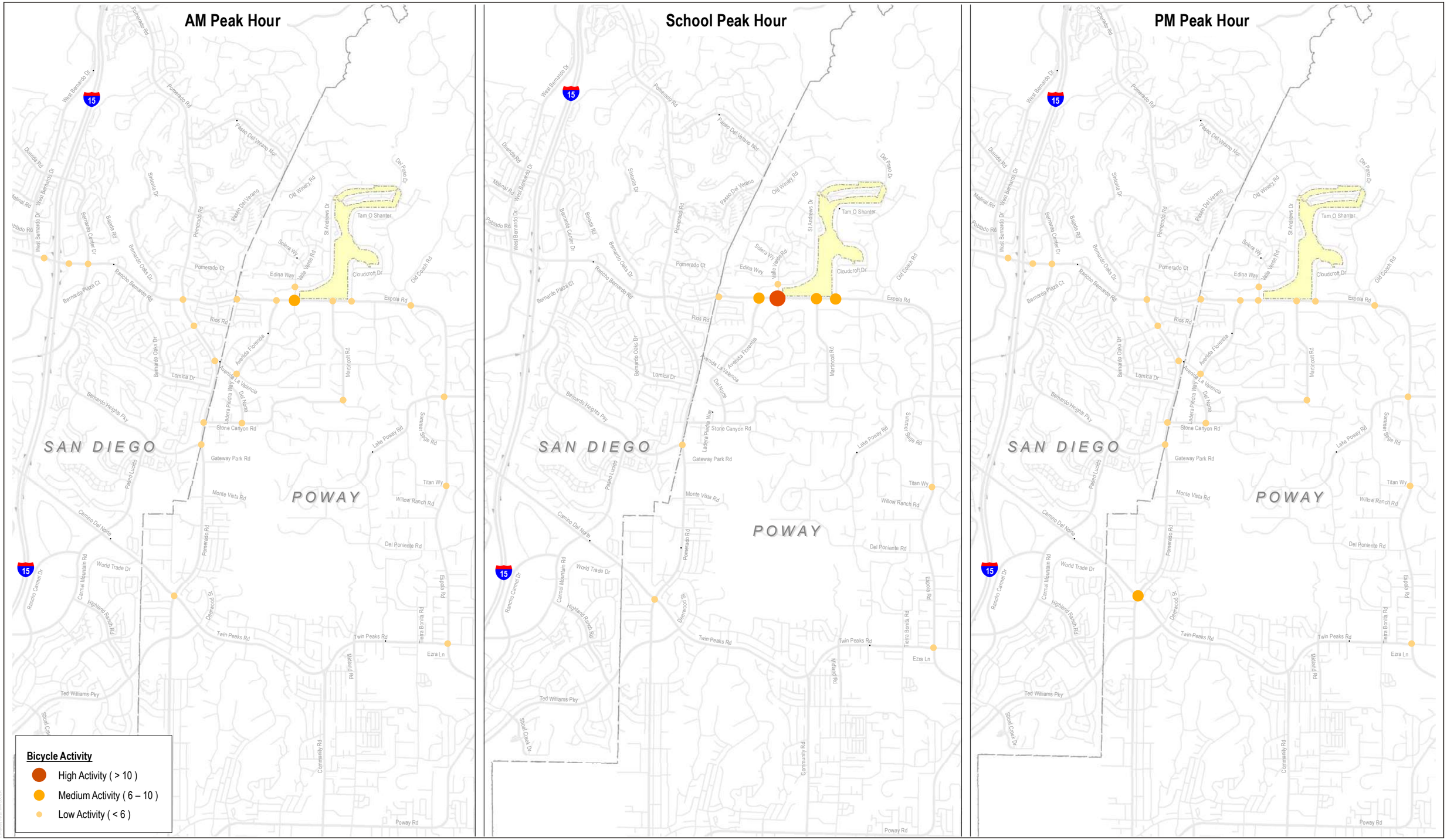
FIGURE 4.15-4

Existing Bicycle Network

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

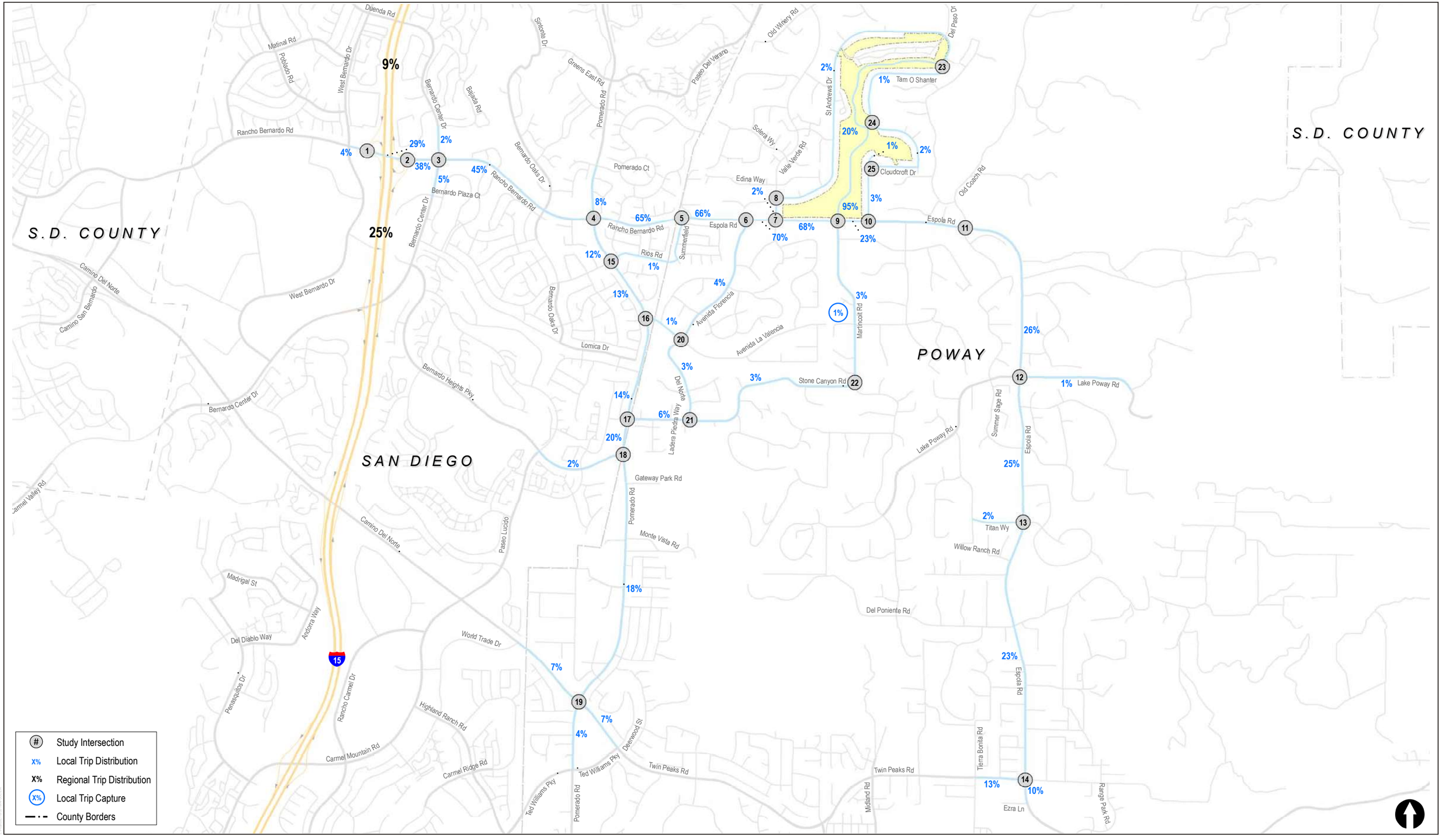
FIGURE 4.15-5

Existing Bicycle Demand

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

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FIGURE 4.15-6a

Project Traffic Distribution

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

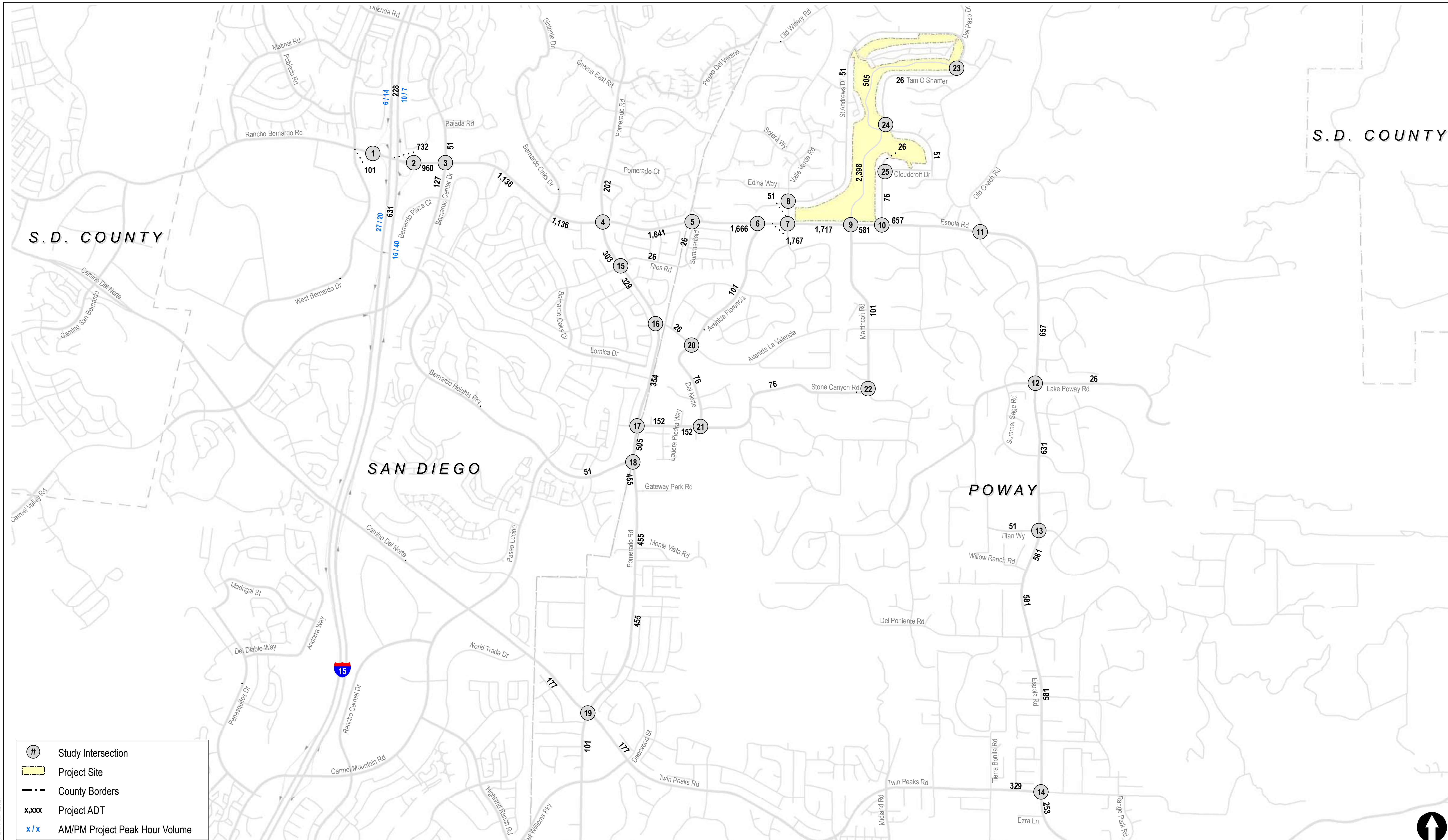
FIGURE 4.15-6b

Project Traffic Distribution

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

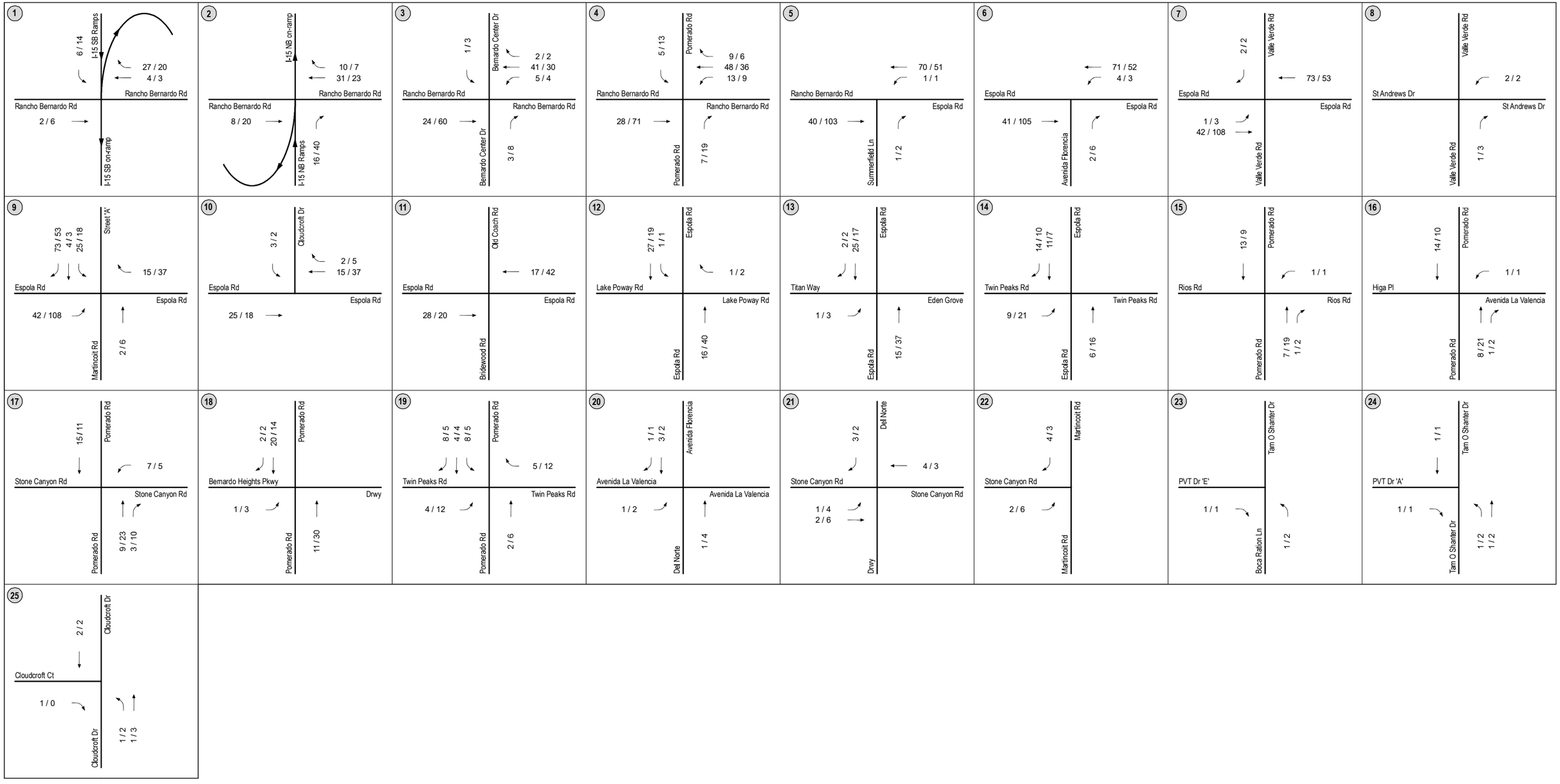
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FIGURE 4.15-7a

Project Traffic Volumes

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

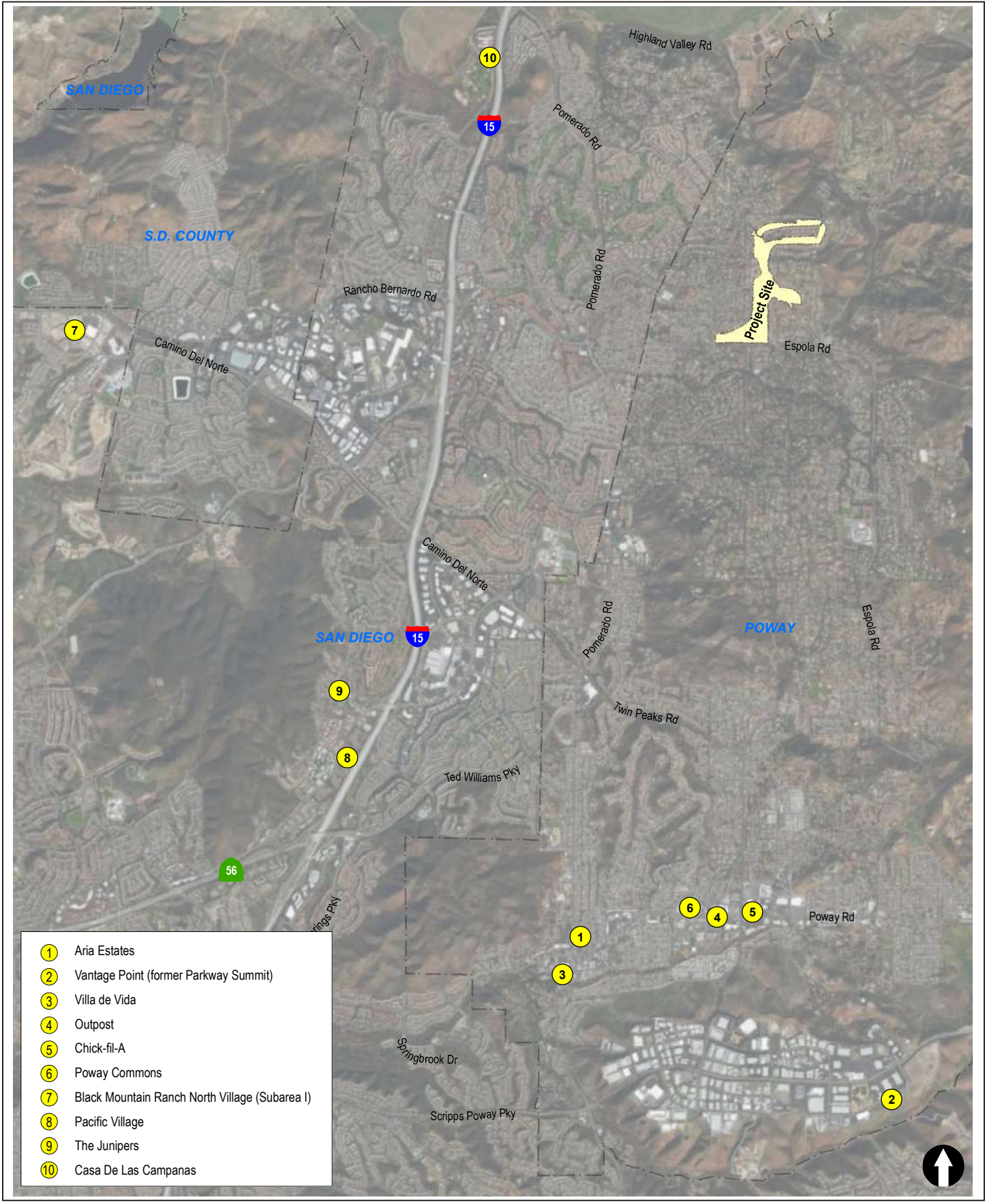
FIGURE 4.15-7b

Project Traffic Volumes

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

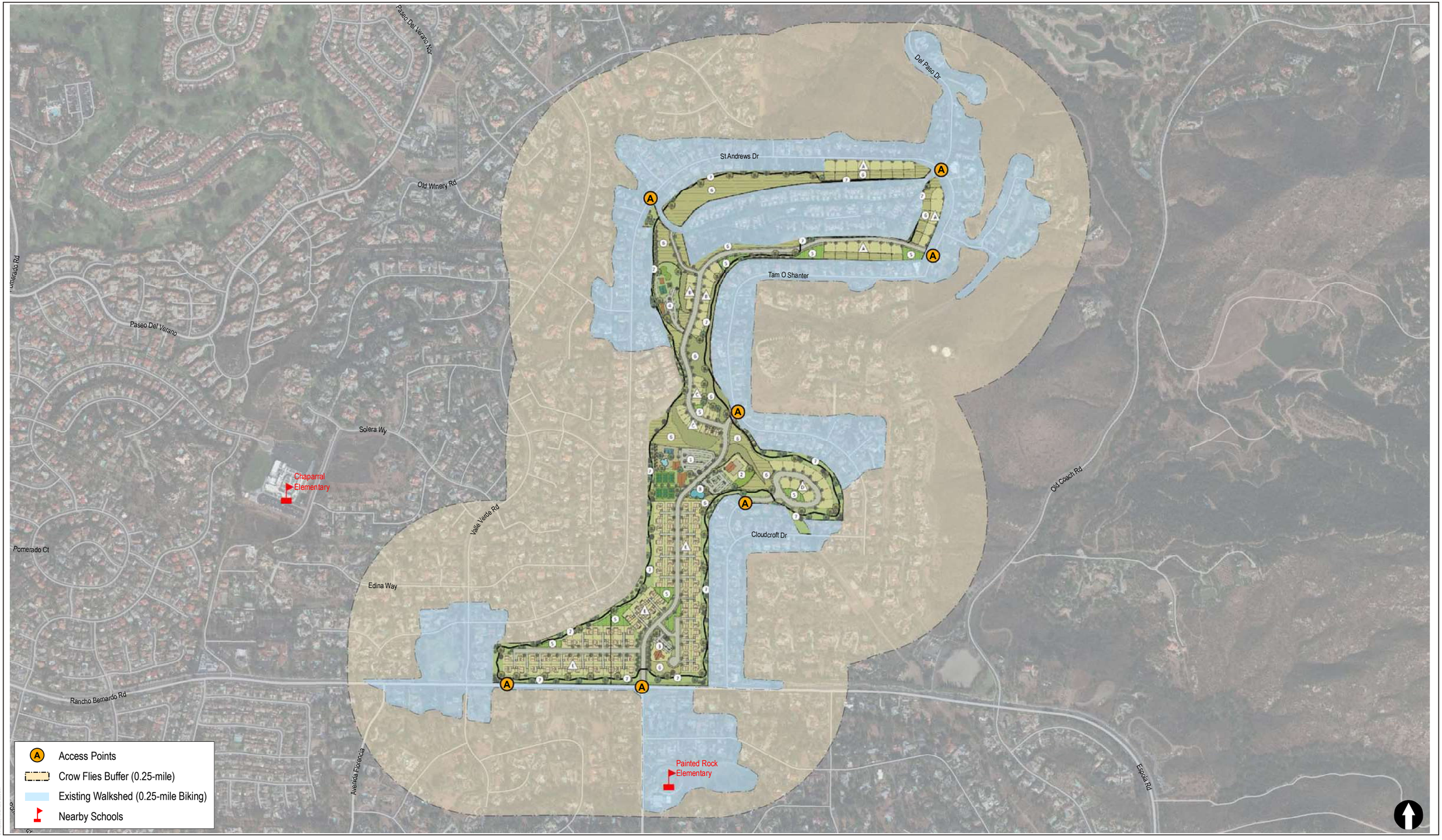
FIGURE 4.15-8

Cumulative Projects

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

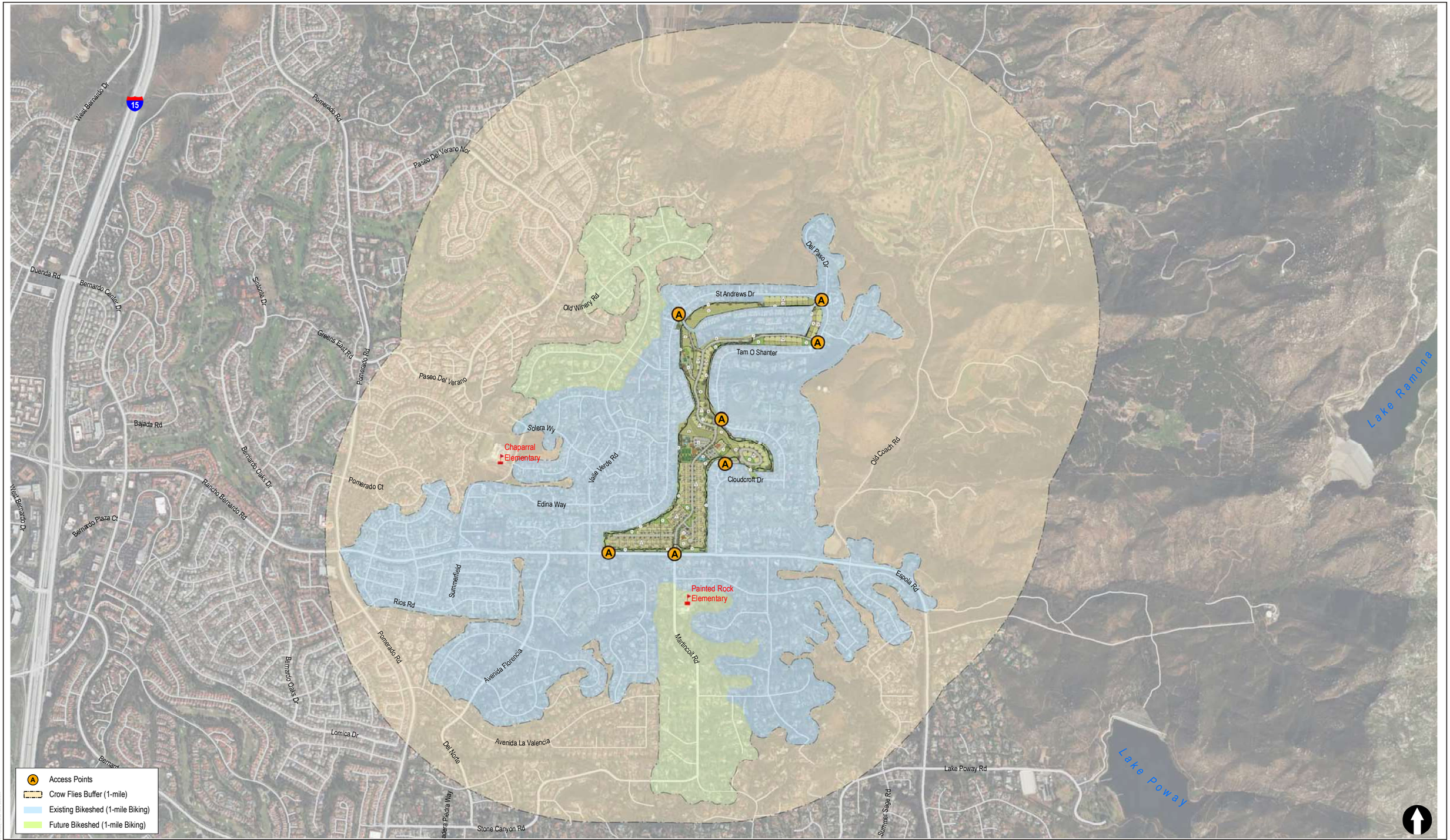
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FIGURE 4.15-9

Walkshed Analysis

The Farm in Poway

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SOURCE: Lindscott Law & Greenspan, Engineers, 2019

FIGURE 4.15-10

Bikeshed Analysis

The Farm in Poway

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4.16 Utilities and Service Systems

This section describes the existing utilities conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. Potential impacts associated with electricity, natural gas, and fuel (petroleum) are analyzed in Section 4.5, Energy, of this Environmental Impact Report (EIR). This section covers resources related to water, wastewater, stormwater, and solid waste. This analysis is based on review of existing resources; technical data; applicable laws, regulations, and guidelines; and the System Analysis for the Farm in Poway, prepared by Dexter Wilson Engineering Inc. in March 2019. The sewer system analysis is included as Appendix K of this EIR.

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to utilities and service systems focused on the following topics:

- Increased demand for water and public utilities
- Increased wastewater and trash collection service demands

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.16.1 Existing Conditions

Local Water Source and Supply

The City of Poway (City) Public Works Department operates a modern water treatment and distribution system. The City's water infrastructure is supported by importation of water from both the Colorado River and Northern California. Within the City, Lake Poway serves as a storage reservoir and is able to store over one billion gallons of water at a time. Water flows through the Lester J. Berglund Water Treatment Plant (Berglund WTP), where approximately three billion gallons of drinking water are treated every year. Once treated, the drinking water enters a system of pipes, pump stations, and reservoirs for delivery to customer's homes and businesses. The City's drinking water meets or exceeds all state and federal standards for water quality (City of Poway n.d.).

Regional Water Supply and Distribution

San Diego County Water Authority

The San Diego County Water Authority (SDCWA) provides 99 percent of the City's water in the form of untreated water, with the remaining demand being met through recycled water purchased from the City of San Diego. SDCWA is supplied water by the Metropolitan Water District of Southern California (MWD), water transfers from the Imperial Irrigation District, and desalinated water from the Carlsbad Desalination Plant. MWD water derives primarily from the State Water Project and the Colorado River. All of this imported water is treated locally at the City's water treatment plant and then distributed via a complex and comprehensive systems of pumps and pipes.

The SDCWA service area covers approximately 951,000 acres, services a population of almost three million people, and encompasses the western third of the County of San Diego (County). SDCWA water is imported from MWD under a transfer agreement with Imperial Irrigation District, and agreements for the lining of the All

American and Coachella Canals, via the Quantification Settlement Agreement of October 2003. Most of this water is obtained from the Colorado River and the State Water Project through a massive system of pipes and aqueducts (SDCWA 2016).

Both MWD and SDCWA provide water to their member agencies to meet projected water demand based on regional population forecasts. The San Diego Association of Governments is responsible for providing and updating land use planning and demographic forecasts for the County. MWD and SDCWA update their water demand and supply estimates based on the most recent demographic forecasts approximately every five years to coincide with preparation of their respective Urban Water Management Plans (UWMPs) (SDCWA 2016).

SDCWA's 2015 UWMP includes a summary of the total projected water supplies and demands over the next 20 years in five-year increments (2020–2040) under normal, single dry, and multiple dry water years within SDCWA's service area (which includes the City and Poway Municipal Water District). SDCWA's reliability assessment demonstrates that, even with very conservative assumptions regarding the availability of dry year supplies from MWD, the San Diego region's existing and projected water resource mix is increasingly drought-resilient, but shortages still occur during a single dry year by 2035 (23,907 acre-feet per year), and during a multiple dry year beginning in 2028 (29,314 acre-feet per year) (SDCWA 2016). These shortages would be eliminated should MWD supplies approach the supply levels projected in MWD's 2015 UWMP for single dry and multiple dry water year supply capabilities (SDCWA 2016). Further, SDCWA will address these shortages by the following methods (SDCWA 2016):

- Implementing extraordinary conservation measures, achieved through voluntary and mandatory water-use restrictions that were used during the 2012–2016 drought period.
- Implementing its carryover storage program, which includes (1) in-region surface storage of approximately 100,000 acre-feet at San Vicente Reservoir, secured as part of the San Vicente Dam Raise Project completed in 2014, with the carryover pool of 100,000 acre-feet full by June 2016; and (2) out-of-region permanent groundwater storage allocation of a total of 70,000 acre-feet in water banks located in Kern County.
- If necessary, securing dry year water transfers, which SDCWA successfully acquired and used during the 2007–2011 shortage management period.

As stated, SDCWA also has applied very conservative assumptions regarding the availability of dry-year supplies from MWD. For instance, SDCWA has assumed that: (1) MWD is limited to 1.4 million acre-feet of supplies due to dry conditions and increased reductions in deliveries from the State Water Project (no Sacramento–San Joaquin River Delta improvements) and/or a reduction in Colorado River deliveries; and (2) SDCWA receives its preferential right based on MWD's current method of calculating such rights.

Furthermore, SDCWA's 2015 Annual Report, Beyond Drought: Reliable Water in an Era of Change, states that SDCWA has diversified its supply sources to ensure water reliability in drought years when supplies from Metropolitan may be limited (SDCWA 2015). This diversification includes independent water transfers from the Colorado River, working with the member agencies to increase conservation, increasing the use of recycled water, and using local groundwater (SDCWA 2015). The report also states that SDCWA's most significant accomplishment of the year was proving the value of the region's long-term strategy to develop a diversified water portfolio. In a year of serious drought, SDCWA and its member agencies not only had enough water to meet demands, but they had enough to start storing water behind the raised San Vicente Dam, which was completed in 2014 (SDCWA 2015).

As part of a diversified portfolio, the Carlsbad Desalination Plant began commercial operations in December 2015, and can provide a highly reliable drought-resilient local potable water supply of up to 56,000 acre-feet per year for the region, available in both normal and dry year conditions. SDCWA provided the opportunity for its member agencies—including the City—to enter into contracts to purchase desalinated water produced from the plant.

In summary, water agencies throughout California continue to face climatological, environmental, legal, and other challenges that impact water supply, such as court rulings regarding listed fish species, State Water Resources Control Board (SWRCB) water quality restrictions, and recent drought conditions. Challenges such as these will always be present. Nonetheless, the regional water supply agencies, MWD and SDCWA, contemplate sufficient, reliable supplies to serve existing and projected future demand.

MWD's and SDCWA's overall reliability goal is to deliver an adequate, reliable, and high-quality water supply for their customers, even during dry periods or severe droughts (MWD 2016; SDCWA 2016). Based on conservative water supply and demand assumptions contained in MWD's and SDCWA's 2015 UWMPs for a long-term planning horizon over the next 25 years, in combination with conservation of non-essential demand during certain dry years, MWD and SDCWA have determined that implementing their related and coordinated water plans will successfully achieve this goal (MWD 1999)

The City imports 99 percent of its water supply from SDCWA in the form of raw, untreated water. When available, the City's water supply also includes local rainfall that is captured in Lake Poway. Poway also purchases recycled water (approximately 550 acre-feet per year) from the City of San Diego for irrigation in the Poway Business Park. The City owns and operates the Berglund WTP, which treats the raw, untreated imported water and rainfall to potable (drinking water) levels for the City. The Berglund WTP has a peak design capacity of 24 million gallons per day (mgd) and typically produces on average 10.5 mgd, based on 2014 demands. The distribution system includes approximately 267 miles of water mains; 18 pressure zones; one 10-million-gallon clear well; and 18 storage tank reservoirs that range in capacity from 200,000 gallons to 2.5 million gallons and exist to maintain adequate supplies during peak demand, for fire flow, or other emergencies (City of Poway 2015a). All of the storage reservoirs are covered to prevent losses from evaporation and reduce pollution or contamination risks. The City's surface water reservoir, Lake Poway, is a constructed surface storage reservoir with a maximum capacity of 3,300 acre-feet (or 1,075 million gallons). Lake Poway provides storage for emergencies, and buffers the effects of peak seasonal water demands. Imported water supplies are delivered to SDCWA and the City through a system of large-diameter pipelines, pumping stations, and reservoirs (City of Poway 2015a).

The service area population for the City in 2010 was 47,697 and in 2015 was 48,773. The Projected service area population in 2020 is anticipated to be 49,737. The City's service area population is also lower than the City's population because residents in the easternmost portion of the City receive water via private groundwater wells and are thus not connected to the water system (City of Poway 2015a).

The City's Planning Department estimates that the service area represents approximately 68 percent of the total City boundary area. The City's potable water use for 2015 was 8,374 acre-feet, which was an approximately 15 percent decrease from the 2010 water use of 9,913 acre-feet. As part of the 2010 UWMP, the City projected that the water use in 2015 would be 12,727 acre-feet, including system losses and sales to other agencies. The actual 2015 demand was almost 35 percent less than the projected 2015 demand. The City's initiatives to decrease water use to meet 2015 and 2020 gallon per capita per day targets and drought restrictions have been the biggest factors in the actual 2015 water demand being less than that projected in the 2010 UWMP (City of Poway 2015a).

Metropolitan Water District of Southern California

MWD supplies water to approximately 19 million people in a 5,200-square-mile service area that includes portions of Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego Counties. The MWD service area covers a 70-mile-wide strip of the Southern California coastal plain, extending from the City of Oxnard on the north to the US-Mexico international border on the south. Close to half of the water used in this region is supplied by MWD, and about 90 percent of the regional population receives at least some of its water from MWD. MWD provides approximately 71 percent of the total water supply for the County, including incorporated areas such as the City. SDCWA is one of MWD's 27 member agencies and is the largest MWD member agency in terms of deliveries (MWD 2011)

Wastewater Service

The City's Public Works Department operates and maintains the sewer system that wastewater generated from the proposed Project would be conveyed through. The wastewater collected in the City's sewage system is conveyed through the City of San Diego's Municipal Wastewater System for conveyance to the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) for treatment and disposal, and through the Metropolitan Wastewater System for treatment at either the North City Water Reclamation Plant (NCWRP) or the Point Loma Wastewater Treatment Plant (PLWTP) (The Farm in Poway LLC 2020).

HARRF is located approximately 10 miles northwest of the project site and is an activated sludge, secondary treatment facility. HARRF's treatment capacity is 18 mgd and currently operates at an average daily flow rate of 12.7 mgd (City of Escondido n.d.). NCWRP is located approximately 17 miles southwest of the project site, is tertiary treatment facility, and provides reclaimed water for the City for irrigation, landscaping, and industrial use. NCWRP's treatment capacity is 30 mgd and currently operates at a nominal flow rate of 15.4 mgd (City of San Diego n.d.a; PUD 2017). PLWTP is located approximately 32 miles southwest of the project site, is a primary treatment plant, and treats the majority of the City's wastewater (City of Poway 2019; PUD 2017). The PLWTP has a treatment capacity of 240 mgd and currently operates at an average daily flow rate of 132 mgd (City of San Diego n.d.b; PUD 2017). Table 4.16-1 shows the wastewater treatment capacities of the facilities discussed above.

Table 4.16-1. Wastewater Treatment Capacities

Facility	Average Daily Throughput (mgd)	Maximum Daily Throughput (mgd)[KM1]	Percentage of Capacity
HARRF	12.7	18	70%
NCWRP	15.4	30	46%
PLMTP	132	240	55%

Source: City of Escondido n.d.; City of San Diego. n.d.a, n.d.b; PUD 2017.

The Saint Andrews Lift Station (SALS) is located on the south side of St. Andrews Drive and is adjacent to the northern boundary of the project site. SALS consists of three pumps that are rated for a design discharge of 100 gallons per minute (gpm). The actual measured firm capacity of SALS is 195 gpm, and the existing peak wet weather flows are 113 gpm. This force main conveys flow from the lift station south through an easement and into Tam O'Shanter Drive. The force main discharges into an eight-inch gravity sewer line in Tam O'Shanter Drive that conveys flows south.

Table 4.16-2 shows estimated sewer demands, or sewer generation factors, based on land use (see Appendix K for additional information). Additionally, the proposed project's projected sewer flows are shown in Table 4.16-3. Using the peaking factor chart from Appendix K, and assuming a per-capita flow of 80 gallons per day, the projected peak flow would be 112,060 gallons per day (78 gpm).

Table 4.16-2. Sewer Generation Factors

Land Use	Water Duty Factor
Single-Family Residential	215 gpd/unit
Amenities	300 gpd/acre

Source: Appendix K.
Notes: gpd =gallons per day.

Table 4.16-3. Projected Sewer Demand

Land Use	Quantity	Unit Demand	Total Average Demand (gpd)
Residential	160 units	215 gpd/unit	32,250
Amenities	8.5 acres	300 gpd/acre	2,550
		Total	**34,800**

Source: Appendix K.
Notes: gpd =gallons per day.

The proposed project is estimated to generate 34,800 gallons per day. Wastewater generated by the proposed project would be collected and conveyed through a series of pipes ranging from eight to 12 inches in diameter, as discussed in The Farm in Poway Specific Plan (Specific Plan) (The Farm in Poway LLC 2020). The proposed project's system would then connect to local gravity lines and the SALS and force main, which is located at the northern boundary of the proposed project (see Figure 3-7, Conceptual Sewer Master Plan). Four lots on the northeast corner of the project site would require individual pumps because they cannot flow by gravity north or south to connect to the existing sewer systems (Appendix K).

Storm Drain Systems

The Department of Public Works Stormwater and Flood Control Division manages and maintains the stormwater drain lines within the City to collect storm runoff and help prevent flooding of developed areas. The stormwater system consists of channels, gutters, drains, catch basins, and pipes that convey the runoff to receiving water bodies. The City is located within two watershed management areas: Los Penasquitos, which covers 61.7 percent of the City, and San Dieguito, which covers the remaining 38.3 percent of the City. The project site falls within the San Dieguito Watershed Management Area.

The City adopted its Jurisdictional Runoff Management Plan in 2015, which directs the City to reduce discharges of pollutants into stormwater conveyance systems through implementation of best management practices, water quality monitoring, educational outreach, municipal maintenance procedures, and inspection and enforcement programs. As discussed in Chapter 3, Project Description, the project site currently accepts stormwater drainage from a number of adjoining properties. The grading plan would drain all stormwater within the project site into swales that convey water to streets or drain stormwater directly to private streets, where it would be collected in catch basins and private systems of pipes. The pipes would convey the stormwater into bioretention basins that would subsequently release stormwater into the City's existing system through bypass storm drains or existing ditches, channels, or pipes adjacent to the project site.

In the southern section of the project site, an existing brow ditch conveys on-site and off-site flows (from St. Andrews Drive) south before discharging into a triple arch culvert beneath Espola Road. The triple arch culvert collects flows from Tam O'Shanter Drive and Cloudcroft Court, which flow into existing storm drain systems and eventually discharge into the Los Penasquitos 906 watershed. The northern portion of the project site flows from Boca Raton Lane into a brow ditch and are routed up to a pipe that conveys flows underneath Valle De Lobo Drive and Villamoura Drive. These flows discharge into an open space near Glen Arven Lane. The project site north of Tam O'Shanter Drive drains to the north before discharging into Sycamore Creek.

Stormwater runoff collected from the project site may contain high sediment loads and many types of pollutants, including oil and grease, chemicals, pesticides, heavy metals, bacteria, viruses, and oxygen-demanding compounds. The collection of stormwater into bioretention basins is the primary method of stormwater treatment. Collection into a bioretention basin allows for the slowing of the velocity and volume of the water, therefore preventing flooding, sedimentation, and erosion downstream.

In addition to treatment methods within the stormwater system, pollution prevention strategies including design standards for trash enclosures, best management practices for agricultural uses, and stormwater pollution prevention for construction that are specifically designed to protect stormwater from potential contamination.

Solid Waste Disposal

The City contracts with a private hauler, EDCO, for residential and commercial solid waste and recycling pickup and disposal. EDCO has been family owned and operated since 1967, and serves waste and recycling demands of Southern California communities. With a focus on recycling, EDCO has developed an extensive network of material recovery facilities, construction and demolition processing facilities, commingled recycling processing centers, buyback centers, and household hazardous waste collection centers that are collectively design to maximize recovery efforts (EDCO n.d.). EDCO currently operated six certified recycling buyback centers, two material recovery facilities, six transfer stations, and two mixed construction demolition and inert processing facilities with a goal of achieving zero waste. In 2017, EDCO diverted over 619,575 tons from the landfill.

According to the California Department of Resources Recycling and Recovery (CalRecycle), the 2016 per-capita disposal rate estimate for commercial uses was 11.4 pounds per employee per day; however, the amount and type of waste varies greatly depending upon the use (CalRecycle 2019a). For instance office uses generate more paper waste while restaurants generate more organic waste. Commercial uses would be provided with dumpsters for trash, recycling, and organic waste.

4.16.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Water Pollution Control Act of 1972 (Clean Water Act)

The principal federal law regulating water quality in the United States is the 1972 Federal Water Pollution Control Act, also known as the Clean Water Act. The fundamental purpose of the Clean Water Act is the protection of designated beneficial uses of water resources. The Clean Water Act establishes a system of water quality standards, discharge limitations, and permits; it requires states to adopt water quality standards to protect public health and welfare, enhance the quality of water, and serve the other purposes of the Clean Water Act. The Clean Water Act was amended in 1987 to include urban and stormwater runoff, which required many cities to obtain a National Pollutant Discharge Elimination System (NPDES) permit for stormwater conveyance system discharges (see below).

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers regulates discharges of dredged or fill material into waters of the United States, requiring issuance of a Section 404 permit. Under Section 401 of the Clean Water Act, a state water quality certification must be obtained whenever an application for a federal permit for discharge of pollutants into waters of the United States is submitted, such as a Section 404 permit. The Section 401 certification requires that any activity affecting waters of the United States be in compliance with all applicable water quality standards, limitations, and restrictions.

National Pollutant Discharge Elimination System

The 1987 amendments to the Clean Water Act required many cities to obtain an NPDES permit for stormwater conveyance system discharges. Section 402(p) of the Clean Water Act prohibits discharges of pollutants contained in stormwater runoff, except in compliance with an NPDES permit.

Safe Drinking Water Act

Passed in 1974 and amended in 1986 and 1996, the Safe Drinking Water Act grants the U.S. Environmental Protection Agency the authority to set drinking water standards. Drinking water standards apply to public water systems, which provide water for human consumption through at least 15 service connections, or regularly serve at least 25 individuals. There are two categories of drinking water standards, (1) the National Primary Drinking Water Regulations and (2) the National Secondary Drinking Water Regulations. The National Primary Drinking Water Regulations are legally enforceable standards that apply to public water systems. These standards protect drinking water quality by limiting the levels of specific contaminants that can adversely affect public health and are known or anticipated to occur in water. The National Secondary Drinking Water Regulations are non-mandatory guidelines for certain substances that do not present a risk to public health.

Water Resources Development Act

The Water Resources Development Act (passed December 2016) includes short-term provisions that sunset after five years. These provisions increase pumping operations in the Sacramento–San Joaquin River Delta at the highest levels allowed under biological opinions issued by state and federal wildlife agencies under the Endangered Species Acts, unless the pertinent agencies show that the increased pumping would cause additional adverse effects on listed fish (smelt and salmonid) species beyond the range of effects anticipated in those opinions, using the best scientific and commercial data available. The biological opinions have been subject to years of litigation between farming interests, urban water districts, fishing associations, and environmental groups, with the current versions upheld by the Ninth Circuit Court of Appeals. The new law's long-term provisions include significant funding authorizations that also should result in more water availability throughout California. These funding authorizations include long-term water infrastructure projects such as storage and groundwater projects; water recycling, reuse, and conservation projects; and design and construction of desalination projects. The additional funds will help supplement California's water bond.

State

Safe Drinking Water Act

The State Safe Drinking Water Act (Health & Safety Code, Sections 116270 et seq.) builds on and strengthens the federal Safe Drinking Water Act. The state act authorizes the state's Department of Public Health to protect the public from contaminants in drinking water by establishing maximum contaminant levels that are at least as stringent as those developed by the U.S. Environmental Protection Agency under the federal act.

California Drinking Water Standards

State drinking water standards are based on federal standards and are listed in Title 22 of the California Code of Regulations. The California Department of Health Services administers the state drinking water standards.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are primary sources for environmental legislation in California; they require projects with potential adverse environmental effects (or impacts) undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

Water Conservation Act of 2009

The Water Conservation Act (SBX7-7) (Water Code Section 10608) requires that all water suppliers increase water-use efficiency. This legislation sets an overall goal of reducing per-capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The state must make incremental progress towards this goal by reducing per-capita water use by at least 10 percent on or before December 31, 2015. Each urban retail water supplier must develop urban water use targets and an interim urban water use target by July 1, 2011.

Under the Water Conservation Act, agricultural water suppliers are required to implement efficient water management practices including adoption of agricultural management plans by December 31, 2012, and updated plans by December 31, 2015, and every five years thereafter. Effective 2013, agricultural water suppliers not in compliance with these planning requirements are ineligible for state water grants or loans.

California Water Code

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the SWRCB shall consider and act upon all applications for permits to appropriate waters. Division 6 of the Water Code controls conservation, development, and utilization of state water resources. Division 7 addresses water quality protection and management.

Executive Order B-29-15 – Temporary Water Conservation Restrictions

On April 1, 2015, Governor Brown issued temporary, emergency Executive Order B-29-15, seeking to achieve a 25 percent reduction in water use across the state as compared to the water use in 2013. The reduction amount required of each urban water supplier is determined based on per-capita water use whereby those areas with high per-capita use are to achieve proportionally greater reductions than those with low use. The Executive Order also directed SWRCB to adopt regulations, approved on May 5, 2015, mandating various water conservation restrictions to achieve the statewide 25 percent overall reduction in potable water usage through February 2016.

Senate Bill 610

State legislation has improved the link between water supply and land use planning. Senate Bill (SB) 610 (Water Code Sections 10910 et seq.) requires the preparation of a water supply assessment for projects within cities and counties that propose any of the following:

- Residential developments of more than 500 dwelling units
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space
- Hotels, motels, or both, having more than 500 rooms
- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- Mixed-use projects that include one or more of the projects specified in Water Code Section 10912(a)
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project

SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a water supply assessment to evaluate water supplies that are or will be available during normal, single dry, and multiple dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with the proposed project (DWR 2003). Because the proposed project would construct less than 500 residential units, completion of a water supply assessment is not required and is not a part of this EIR.

Senate Bill 221

Enacted in 2001, SB 221 (Government Code Sections 66455.3 and 66473.7) requires that the legislative body of a city or county, which is empowered to approve, disapprove, or conditionally approve a subdivision map, must condition such approval upon proof of sufficient water supply. The term "sufficient water supply" is defined in SB 221 as the total water supplies available during normal, single dry, and multiple dry water years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed development, but also existing and planned future uses, including, but not limited to, agricultural and industrial uses.

SB 221 requirements do not apply to the general plans of cities or counties, but rather to specific development projects. In addition, SB 221 only applies in the event that the proposed development is considered a "project" under SB 610 (DWR 2003). Because the proposed project would construct less than 500 residential units, it would not be considered a "project" under SB 610, and thus SB 221 does not apply to the proposed project.

Urban Water Management Planning Act

The 1983 Urban Water Management Planning Act (California Water Code Sections 10610–10656) requires specified urban water suppliers within the state to prepare a UWMP and update it every five years. State and local agencies and the public frequently use such plans to determine if agencies are planning adequately to reliably meet water demand in various service areas. As such, the plans serve as an important element in documenting water

supply availability and reliability for compliance with state laws, including SB 610 and SB 221 (discussed above), which link water supply sufficiency to large land-use development project approvals. Urban water suppliers also must prepare such plans, pursuant to the Urban Water Management Planning Act, to be eligible for state funding and drought assistance.

UWMPs provide information on water usage, water supply sources, and water reliability planning. They also may provide implementation schedules to meet projected demands over a planning horizon, a description of opportunities for new development of desalinated water, groundwater information (where groundwater is identified as an existing or planned water source), a description of water quality over the planning horizon, and identification of water management tools that maximize local resources and minimize imported water supplies. A UWMP's water supply analysis includes a water supply reliability assessment, water shortage contingency plan, and development of a plan in case of an interruption in water supply.

UWMPs are required by all the water purveyors related to the proposed project, including the City, SDCWA, and MWD.

Delta Plan

Water supplies in California are based largely around the Sacramento–San Joaquin River Delta (Delta). Water from Northern California surface waters and snowmelt travels to and through the Delta to Central Valley urban and agricultural users and to Southern California through aqueducts, dams, and other infrastructure. The Sacramento–San Joaquin Delta Reform Act (Water Code Section 85000 et seq.) established the Delta Stewardship Council, which has the primary goal of developing and implementing an enforceable, long-term management plan for the Delta (Delta Plan). The Delta Plan's coequal goals of providing a more reliable water supply for California while restoring the Delta ecosystem are the foundation of all state water management policies. As required by statute, the Delta Plan adopts a science-based adaptive management strategy to manage decision making in the face of uncertainty (Water Code Section 85308[f]). The law requires that the Delta Plan be updated every five years, and each update is intended to build on an evolving base of knowledge, direct near- and mid-term actions, and preserve and protect longer-term opportunities.

California Water Plan

Water Code Sections 10004 through 10013 describe the components and characteristics of the California Water Plan, which addresses the coordinated control, protection, conservation, development, and utilization of the state's water resources. Updated every five years, the most recent water plan is the California Water Plan Update 2018, released in June 2019.

California Water Recycling Standards

The California Legislature has developed state requirements for the production, discharge, distribution, and use of recycled water. These requirements are contained in the California Code of Regulations, Title 22, Division 4, Chapter 3, Reclamation Criteria, Sections 60301 through 60475, and Title 17. The California Department of Public Health administers the state recycling water standards.

California Green Building Standards Code

The California Green Building Standards Code (CALGreen Code) is set forth in California Code of Regulations, Title 24, Part 11, and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development and water conservation, among other issues. Under the CALGreen Code, all water

closets (i.e., flush toilets) are limited to 1.28 gallons per flush, and urinals are limited to one-half gallon per flush. In addition, maximum flow rates for faucets are established as follows: two gpm at 80 pounds per square inch for showerheads; 1.5 gpm at 60 per square inch for residential lavatory faucets; and 1.8 gpm at 60 per square inch for kitchen faucets.

The CALGreen Code also includes Section 4.408.2, a Construction Waste Management Plan. This plan identifies which waste created during construction could be sorted on site, or bulked and then transported to diversion facilities.

Water Conservation Projects Act

The state requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (California Water Code, Sections 11950–11954), which encourages local agencies and private enterprise to implement potential water conservation and reclamation projects. Potential water conservation and reclamation projects may include facilities for municipal and industrial advanced wastewater treatment, regulatory impoundments, improvements to water supply and delivery systems, tailwater recovery systems, and sprinkler or drip irrigation systems.

Senate Bill 244

SB 244, adopted on October 10, 2011, requires cities to review and update the Land Use Elements of their general plans to include data and analysis, regarding unincorporated islands, fringe, or legacy communities within or adjacent to the city's sphere of influence. SB 244 requires cities to prepare a determination regarding the existing and planned adequacy of public facilities and public services, including wastewater, potable water, stormwater, police, and fire. SB 244 prohibits the Local Agency Formation Commission from approving an annexation to a city of any territory greater than 10 acres, where there exists a disadvantaged unincorporated community that is contiguous to the area of proposed annexation, unless an application to annex the disadvantaged unincorporated community to the city has been filed with the Local Agency Formation Commission and evaluates the present and probable sewers, water, stormwater, police, and fire protection needs or deficiencies.

General Waste Discharge Requirements

On May 2, 2006, the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than one mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system in order to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan. The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

California Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (Porter–Cologne Act) is the principal state law enacted to establish requirements for adequate planning, implementation, management, and enforcement of water quality controls. The Porter–Cologne Act, which became Division 7 of the California Water Code, establishes a regulatory program to protect water quality and beneficial uses of all state waters, outlined the responsibilities and authorities of the nine Regional Water Quality Control Board (RWQCBs), and established the SWRCB. For the San Diego Hydrologic Region,

water quality is regulated by the San Diego RWQCB, Region 9 of the SWRCB. Each RWQCB is directed to create a water quality control plan, to include three main components: (1) beneficial uses that are to be protected, (2) water quality objectives that protect those uses, and (3) an implementation plan to accomplish those objectives.

California Integrated Waste Management Act – Assembly Bill 939

The Integrated Waste Management Act requires each county to prepare a Countywide Integrated Waste Management Plan, with input from each city in a given county. This plan is reviewed at least once every five years to ensure that waste management practices remain consistent with the practices defined in the Public Resources Code. As part of the Countywide Integrated Waste Management Plan, each jurisdiction (cities and county) is required to prepare and maintain Source Reduction and Recycling, Household Hazardous Waste, and Non-Disposal Facility Elements. The Countywide Integrated Waste Management Plan is a summary plan that combines all these elements and is required to be approved by the county Board of Supervisors and the majority of the cities within the county.

California Mandatory Commercial Organics Recycling – Assembly Bill 1826

In October 2014, Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multi-family residential dwellings that consists of five or more units. Organic waste is defined as food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. However, multi-family dwellings are not required to have a food waste diversion program. This law phases in the mandatory recycling of commercial organics over time, while also offering an exemption process for rural counties. In particular, the minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

California Solid Waste Reuse and Recycling Access Act of 1991 – Assembly Bill 1327

AB 1327, which was established in 1991, required CalRecycle to develop a model ordinance for the adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects.

Disposal Measurement System Act of 2008 – Senate Bill 1016

SB 1016 maintains the 50 percent diversion rate requirement established by AB 939, and also established revised calculations for those entities that did not meet the 50 percent diversion rate. SB 1016 also established a per-capita disposal measurement system to make the process of goal measurement, as established by AB 939, simpler, timelier, and more accurate. The new disposal-based indicator—the per-capita disposal rate—uses only two factors, (1) a jurisdiction's population (or in some cases employment) and (2) its disposal rate as reported by disposal facilities.

Solid Waste Diversion – Assembly Bill 341

Effective July 1, 2012, AB 341 requires that commercial enterprises that generate four cubic yards or more of solid waste weekly participate in recycling programs. This requirement also includes multi-family housing complexes of five units or more, regardless of the amount of solid waste generated each week. The purpose of this requirement

is to reduce greenhouse gas emissions by diverting commercial solid waste to recycling, and to expand recycling opportunities in California. As part of implementing AB 341, the California Legislature set an ambitious goal of 75 percent recycling, composting, or source reduction of solid waste by 2020. The law calls for the state and CalRecycle to take a statewide approach to decreasing California's reliance on landfills. CalRecycle is actively working to develop and implement programs to achieve the 75 percent target.

Local

Poway Comprehensive Plan: General Plan

The Poway Comprehensive Plan: General Plan (General Plan) contains the following goals, policies, and strategies that address utilities and service systems (City of Poway 1991):

Goal VII: It is the goal of the City of Poway to provide a safe and healthy environment for the residents of Poway.

Policy I – Solid Waste: Promote safe, environmentally sound means of solid waste disposal for the community.

- **Strategy 1:** Proceeds of recycling are a resource and should be used to benefit the community to the extent feasible.
- **Strategy 2:** Investigate means to create a market for recycled goods.
- **Strategy 3:** Implement a curbside recycling program in all residential neighborhoods.
- **Strategy 4:** Promote the use of all plant material waste for compost or mulch.
- **Strategy 5:** Promote the recycling of construction refuse and "white waste" (water heaters, washing machines, etc.).

Goal IX: It is the goal of the City of Poway to provide an efficient and economical public water and wastewater treatment system to serve the current and future residents of Poway.

Policy A – City Water System: A consistent level of quality water service shall be maintained by minimizing the impacts of new land use changes on the existing system.

- **Strategy 1:** Encourage and promote water conservation techniques and awareness in the community.
- **Strategy 2:** Encourage community and individual responsibilities that prepare emergency water resource plan in case of disaster or system failure.
- **Strategy 3:** Require new construction to include appropriate water conserving measures including low flow fixtures water conserving appliances and low volume irrigation systems and to provide water conservation offsets.
- **Strategy 4:** Require the use of low volume irrigation systems where feasible.
- **Strategy 5:** Encourage existing construction to retrofit with appropriate water conserving appliances and low volume irrigation systems.
- **Strategy 6:** Limit the extension of water service facilities such as transmission lines or pumps to accommodate new development projects to one quarter mile across an undeveloped area.
- **Strategy 7:** The dedication construction and maintenance of pumps transmission and storage facilities to service new developments and expand the City's water system capacity should be reviewed with each new development application.
- **Strategy 8:** Require commercial car washes to use recycled water.
- **Strategy 9:** Require all new swimming pools to be covered when not actively in use.

Policy C – Water Reclamation: Serve the community's wastewater treatment needs through water reclamation.

- **Strategy 1:** Develop and implement a water reclamation master plan and implementation service area distribution system master plan to define encourage and develop the use of reclaimed water in Poway.
- **Strategy 2:** All new construction in areas proposed for service by reclaimed water shall be pre-plumbed to readily accept reclaimed water for landscape irrigation.
- **Strategy 3:** Reclaimed water shall be used wherever its use is economically justified technically feasible and consistent with legal requirements preservation of public health safety and welfare and environmentally desirable. Reclaimed water uses may include landscape irrigation filling of artificial lakes industrial processes agricultural production.
- **Strategy 4:** Wastewater treatment system expansions should be designed to maintain the current Level of Service.
- **Strategy 5:** Wastewater collection lines or pumping facilities to accommodate new development projects should not be extended over undeveloped areas.
- **Strategy 6:** Structures connected to the community collection system shall not use salt based self-regenerating water softeners.
- **Strategy 7:** Parcels within the sewer improvement district boundary and beyond 200 feet of an available sewer transmission line should be required to install a dry sewer hookup for future utilization of the community sewer system. Parcels within 200 feet of the community sewer system must connect to the system.
- **Strategy 8:** Septic tanks should be limited to parcels of one acre or greater unless circumstances exist that make the connection to a sewer transmission line impossible on existing parcels greater than one half acre but less than one acre. Parcels in areas with a history of septic tank leach field system failures shall connect to the community sewer system.
- **Strategy 9:** All septic tanks shall be approved by the County Department of Environmental Health as a result of on-site tests certified by a qualified engineer.
- **Strategy 10:** Replacement of failed septic systems or new development with proposed septic system shall consider alternative wastewater collection systems including but not limited to, septic tank effluent pump or gravity systems, grey water systems, or alternative on site treatment and disposal systems.

Goal XI: It is the goal of the City of Poway to encourage regional cooperation and coordination.

Policy B – Regional Facilities: Support the construction of appropriately sited and designed facilities to serve regional and/or subregional public facility needs.

- **Strategy 1:** Cooperate in the construction of a regional water reclamation facility to serve both the City of Poway and the City of San Diego.
- **Strategy 2:** Work with other water agencies to provide adequate regional water storage facilities.
- **Strategy 4:** Cooperate in regional efforts to ensure adequate solid waste disposal facilities.

City of Poway Municipal Code – Chapter 8.94 – Water Conservation Plan

Chapter 8.94 of the City's Municipal Code implements the Water Conservation Plan, which encourages efficient water use, discourages wasteful waters use practices, and establishes water use efficiency measures. Section 8.94.040 includes the following water use efficiency measures (City of Poway 2008):

- Do not wash down paved surfaces, including but not limited to sidewalks, driveways, parking lots, tennis courts, or patios, except when necessary to alleviate safety or sanitation hazards.
- Do not allow water waste from inefficient landscape irrigation, such as runoff, low head drainage, or overspray and do not allow water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.
- Irrigate residential and commercial landscapes before 10:00 a.m. and after 6:00 p.m. only.
- Use only a hand-held hose equipped with a positive shut-off nozzle or bucket to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.
- Irrigate nursery and commercial grower's products before 10:00 a.m. and after 6:00 p.m. only. Watering is permitted at any time using a hand-held hose equipped with a positive shut-off nozzle, a bucket, or when a drip/micro-irrigation system/equipment is used. Irrigation of nursery propagation beds is permitted at any time. Water for livestock is permitted at any time.
- Use only recirculated water to operate ornamental fountains.
- Wash vehicles only using a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that recirculates (reclaims) water on site. Do not wash vehicles during hot conditions when additional water is required due to evaporation.
- Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily.
- Do not use single-pass cooling equipment in new commercial applications, including, but not limited to, air conditioners, air compressors, vacuum pumps, and ice machines.
- Use a water recirculation system for commercial conveyor car washes and all new commercial laundry systems.
- Run only fully loaded dishwashers and washing machines.
- Repair all water leaks within five days of notification by the City of Poway, unless other arrangements are made with the City Manager.
- Use recycled or non-potable water for construction purposes when available to the fullest extent possible when available.

City of Poway 2015 Urban Water Management Plan

As previously described, the California Water Code Section 10610 et seq. requires all urban water suppliers within the State of California to prepare and update a UWMP every five years to satisfy requirements of the California Urban Water Management Planning Act of 1983 and its amendments. The City's 2015 UWMP satisfies the requirements of the Urban Water Management Planning Act, which defines an urban water supplier as a supplier—either publicly or privately owned—that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplies more than 3,000 acre-feet of water annually. The California Department of Water Resources 2015 Urban Water Management Plan Guidebook for Urban Water Suppliers (DWR 2015) was used in preparing the City's 2015 UWMP (City of Poway 2015a).

City of Poway Jurisdictional Runoff Management Program

On May 8, 2013, the San Diego RWQCB adopted an updated NPDES Municipal Permit, Order No. R9-2013-000, as amended by Order No. R9-2015-001. The NPDES Municipal Permit regulates the discharges into stormwater conveyance systems within 18 Municipalities in the County. Each co-permittee, including the City, was required to develop a comprehensive Jurisdictional Urban Runoff Management Program. The City developed the Jurisdictional Runoff Management Program in response to the permit order. The City's approach to following the permit, entailed reducing discharges of pollutants to the stormwater conveyance system within the City, by means of best management practices. Major components of the Jurisdictional Runoff Management Program include the implementation of best management practices requirements, water quality monitoring, educational outreach efforts, municipal maintenance procedures, and water quality monitoring procedures (City of Poway 2015b).

4.16.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to utilities and service systems are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems would occur if the project would:

1. Require or result in the relocation or construction of new or expanded water wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
2. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
3. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
4. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
5. Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

4.16.4 Impacts Analysis

Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Water

As discussed in Section 4.16.1, Existing Conditions, the City imports 99 percent of its water supply from SDCWA, and captures a small percentage as local rainfall in Lake Poway. The Berglund WTP treats the raw, untreated imported water and rainfall to potable levels for the approximately 45,724 residential, commercial, industrial, and agricultural customers in the City. The Berglund WTP's treatment capacity is 24 mgd and currently operates at an average daily flow rate of 10.5 mgd.

As stated in the Specific Plan, the water demands are established in the 2009 Potable Water Master Plan Update, and based on the land use types, lot sizes, and development densities (The Farm in Poway LLC 2020). The 1.12 gpm per acre unit water demands for Rural Residential (RR-C) were used to calculate water demand for the proposed project. Combining the unit demand with the combined approximate acreage of 117.2 acres, a total average annual water demand of 132.2 gpm is estimated (The Farm in Poway LLC 2020). A fire flow of 1,500 gpm was placed at various proposed fire hydrants throughout the project site. As depicted in Figure 3-6, Conceptual Water Master Plan, all proposed pipelines are located within the project site. It is assumed a network of eight-inch pipelines would be implemented. As stated in the Specific Plan, results show that the fire flow design criteria are satisfied with a minimum of 20 pounds per square inch at nodes in the vicinity of the fire, and a maximum velocity of less than 15 feet per second throughout the site with all eight-inch piping (The Farm in Poway LLC 2020). Therefore, no off-site water infrastructure improvements are necessary to service the proposed project. Any impacts relative to the construction of water pipelines are contained within the project site and analyzed herein. Therefore, the proposed project would not result in relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be **less than significant** and no mitigation is required.

Wastewater

As discussed in Section 4.16.1, the proposed project is estimated to generate 34,800 gallons per day of wastewater to be collected and conveyed through a series of pipes ranging from eight to 12 inches in diameter (see Figure 3-7). Most lots in the northern portion of the project site would connect directly into to existing gravity lines via laterals or via new eight-inch gravity lines that convey flows to the existing Lift Station No. 2 at St. Andrews Drive; however, there are four proposed residential lots in the northeast corner of the site that cannot currently flow by gravity north or south to connect to the existing sewer system. These lots will be served by one of the following two options:

1. Installation of a gravity flow sewer to the east and connection to the existing system located in Indian Canyon Lane, which is associated with Old Coach Estates.
2. Construction of private individual grinder pump systems. Each lot would require a grinder pump force main to convey flows northerly to the existing gravity sewer system on St. Andrews Drive.

Lots in the southwest corner of the project site would convey flows westerly and tie into an existing eight-inch gravity line at the intersection of Espola Road and Valle Verde Road, which would then convey flows south in Valley Verde Road.

The remaining lots in the southern portion of the site would be served by newly constructed gravity lines and realigned eight-inch lines. These on-site lines would have capacity to convey flows from off-site areas, including flows received from the St. Andrews Lift Station. Gravity lines in the very south portion of the project site would also have capacity to convey flows from City Lift Station No. 1. Impacts relative to the construction of these two options are analyzed in this EIR. The proposed project would not result in relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be **less than significant** and no mitigation is required.

Stormwater

The project site currently accepts stormwater drainage from adjoining properties. The proposed project would develop 160 single-family units, as well as amenities and recreational open spaces. In order to maintain the existing storm drainage patterns while minimizing potential draining impacts onto existing neighborhoods, a series of public bypass storm drains would be created to collect stormwater at the project site boundary (see Figure 3-8, Conceptual

Drainage Plan). The proposed drainage plan would drain all the stormwater within the project site into streets where it would be collected in catch basins and a private system of pipes, then conveyed into bioretention basins that release stormwater into existing storm drain systems. Seven basins are proposed within the project site (Figure 3-8). Additionally, proposed private storm drains, public bypass storm drains, and public channels would convey the stormwater into existing infrastructure. The proposed project would not result in expansion or relocation of any existing stormwater facilities, therefore the proposed project would have a **less-than-significant impact**.

Telecommunications

The project applicant reached out to Cox Communications and has verified that they would be able to serve the proposed project (Perryman, pers. comm. 2019). Therefore, the proposed project would cause a **less-than-significant impact** in regards to telecommunication facilities.

Electric Power and Natural Gas

See Section 4.5 for a discussion of electric power and natural gas as they relate to the proposed project. All impacts would be **less than significant**.

Would the project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

As discussed above, long-term projections from the SDCWA and MWD for single dry years and multiple dry years have accounted for the increase in population and water demand in the County. Historically, even in drought years, the MWD has not reported a shortage. The proposed project's estimated usage of 101,000 gallons per day would have a **less-than-significant impact** on water supply as projected for reasonably foreseeable future development during normal, dry, and multiple dry years.

Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As previously discussed, the proposed project would construct new gravity sewer lines and pumps, which would be connected to existing sewer infrastructure. The City's wastewater treatment providers include HARRF, NCWRP, and PLWTP. The proposed project would generate approximately 34,800 gallons per day at build out. The treatment capacities for the wastewater treatment providers (in mgd) are as follows: HARRF has a treatment capacity of 18 mgd, NCWRP has a treatment capacity of 30 mgd, and PLMTP has a treatment capacity of 240 mgd. The proposed project would not result in a determination by the wastewater treatment providers that they cannot service the proposed project in addition to the provider's existing commitments, therefore the proposed project would have a **less-than-significant impact**.

Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

As previously described in Section 4.16.1, the City, including the project site, is serviced by EDCO for solid waste and recycling pickup and disposal. The proposed project would comply with City, County, state, and CALGreen requirements regarding recycling and waste disposal, which include design standards for trash enclosures. According to CalRecycle, the 2016 per-capita disposal rate estimate, using SB 1016's measurement system, is 4.9 pounds per resident per day. Upon initiation of an account, all new homes would be provided with three bins: (1) a 35-gallon or 95-gallon trash (black) bin, (2) a 65-gallon recycling (blue) bin, and (3) a 35-gallon or 95-gallon yard (green) waste bin.

In accordance with AB 1826 standards, commercial uses would be provided with three dumpsters: (1) one for trash, (2) one for recyclables, and (3) one for organic waste. Construction waste would be recycled in accordance with the requirements of CALGreen.

Waste collected from the project site would be taken to one of two material recovery facilities: the Escondido Resource Recovery (ERR) Master Facility (SWIS 37-AA-6719) or the Ramona Material Recovery Facility and Transfer Station (SWIS 37-AA-0925). The ERR facility was opened on June 30, 2017, and provides commingled recycling, mixed waste processing, and an anaerobic digester. The Ramona facility includes a newly opened organics facility, transfer station, and recycling buyback center. Residential collection of solid waste by Escondido Disposal is transferred to the ERR facility, where it is then taken to either the Sycamore or Otay Landfills—both of which are located outside of the City. The Otay Landfill is located in the City of Chula Vista, south of the proposed project, while the Sycamore Landfill is located in the City of Santee, also south of the proposed project. Table 4.16-4 identifies the existing capacity of the Otay and Sycamore Landfills.

Table 4.16-4. Solid Waste Facility Capacity

Landfill	Location	Total Capacity *(Cubic Yards)*	Remaining Capacity *(Cubic Yards)*	Remaining Capacity Date
Otay Landfill	Chula Vista	61,154,000	21,194,008	May 31, 2016
Sycamore Landfill	Santee	147,908,000	113,972,637	December 31, 2016

Source: CalRecycle 2019b, 2019c.

Based on modeling completed for Section 4.7, Greenhouse Gas Emissions, the proposed project would increase the amount of solid waste generated in the City by approximately 146 tons per year, which is the equivalent of 195 cubic yards per year of mixed solid waste, compacted in place in a landfill. Solid waste from the area is presently taken to either the Sycamore or Otay Landfills, where there is sufficient capacity. As shown in Table 4.16-4, the Otay Landfill has an approximate remaining capacity of 21,194,008 cubic yards, and the Sycamore Landfill has an approximate remaining capacity of 113,972,637 cubic yards.

Additionally, in compliance with AB 1826, organic waste generated by the proposed project would be diverted from landfill disposal. Organic waste is defined as food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Diversion of organic waste from the proposed project would reduce the amount of waste disposed in the Sycamore or Otay Landfills. Finally, construction waste would be recycled in accordance with CALGreen requirements. Therefore, impacts associated with disposal of solid waste would be **less than significant**.

Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. During construction, solid waste would be appropriately sorted and recycled, when feasible, per CALGreen Building Standards. Operational waste from both residences and commercial uses would meet local standards of solid waste and recycling policies as defined in Section 8.68 of the City's Municipal Code. In addition, organic waste would be recycled in accordance with AB 1826. Compliance with these regulations and statutes would result in **less-than-significant impacts** in respect to disposal of solid waste.

4.16.5 Cumulative Impacts

Figure 3-11, Cumulative Projects, and Table 3-2, Cumulative Projects, identify the projects generally considered for the cumulative analysis.

Water

The City had 49,704 residents as of July 1, 2018; however, the water service area of the City is a bit smaller, with the easternmost portion of the City receiving its water from wells. According to the City's UWMP, in 2015, the City's demand for potable water was 8,374 acre-feet, which is a decrease from 2010 water use of 9,913 acre-feet. The City has employed conservation initiatives to help meet the 2020 and 2025 gallon per capita per day targets. Drought restrictions also played a major role in the decreased water usage between 2010 and 2015. The adaptation of new citywide policies have allowed Poway to become more resilient and flexible with water usage. Lake Poway, the largest reservoir within the City, can hold up to 3,300 acre-feet of water, while over 9,075 acre-feet of water is purchased from either SDCWA (raw) or the City of San Diego (recycled water). Various projects within the City would be required to also follow federal, state, and local policies and conservation initiatives to ensure an adequate water supply for multiple dry years. Foreseen planned residential and commercial projects located within the City may increase the demand for water, however, the culmination of projects **would not result in a cumulatively considerable impact** with regard to water supply.

Wastewater

Wastewater treatment is provided to the whole City mostly by means of transporting wastewater through pipelines to PLWTP. As listed in Table 4.16-1, Wastewater Treatment Capacities, the current wastewater treatment facilities are well under the rated capacity. PLWTP, SBWRP, and NCWRP, all respectively operate at around 50 percent of their rated capacity. The projects slated to increase wastewater within the City would not increase the demand to more than the rated capacity, therefore the proposed project **would not result in a cumulatively considerable impact** with regard to wastewater.

Solid Waste

The City currently contracts with EDCO, a private hauler that currently operates six certified recycling buyback centers, two material recovery facilities, six transfer stations, and two mixed construction demolition and inert processing facilitates with a goal of achieving zero waste. The solid waste from the Poway area is presently taken to either the ERR Master Facility or the Ramona Material Recovery Facility and Transfer Station. The ERR facility has a maximum permitted capacity of 8,743 tons per day, and currently has a maximum permitted throughput of 3,223 tons per day. The Ramona facility has a maximum permitted capacity of 700 tons per day and a maximum permitted throughput of 700 tons per day. The ERR facility is at 37 percent of its permitted daily throughput, and the proposed project is not expected to significantly increase the throughput at either of these centers. Additionally, the solid waste from commercial and residential projects would not produce a significant amount of solid waste and would not significantly increase the solid waste capacity; therefore, the proposed project **would not result in a cumulatively considerable impact** with regard to solid waste.

Stormwater

The stormwater maintenance and design inclusion to the proposed project's design would effectively help reduce the pollution entering storm drains. The City's Jurisdictional Urban Runoff Management Program includes the policies and practices for storm drain management for all foreseeable future projects. Consistent with Jurisdictional Urban Runoff Management Program policies, it is assumed that all other potential cumulative projects would be subject to similar stormwater management, creating less-than-significant impacts. In combination with 21 projects within the City (Table 3-2), the proposed Project's total stormwater pollution and infrastructure changes would not significantly impact the City's needs or treatment capacities; therefore the proposed project **would not result in a cumulatively considerable impact** with regard to stormwater management and infrastructure**.**

Telecommunications

The existing residential areas surrounding the project site are currently being provided broadband and telecommunications services by Cox Communications, Spectrum, AT&T, and Windstream Communications. Additionally, Cox Communications has provided a will-serve letter that states their availability of infrastructure and services for the proposed project. Other projects in the area that would use telecommunications services include Vista Maderas Subdivision, Liguori Ranch, and St. Bartholomew's Episcopal Church Remodel. However, as stated above, there are many different companies that could also potentially provide service to these projects. Users have choices, and the available systems provide appropriate facilities and services to meet the needs of land uses within the City. Therefore, the proposed project **would not result in a cumulatively considerable impact** with regard to telecommunications facilities**.**

4.16.6 Mitigation Measures

As described in section 4.16.4, Impacts Analysis, implementation of the proposed project would not result in any significant impacts to utilities and service systems, including water, wastewater, solid waste, and telecommunications. Therefore, no mitigation would be required.

4.16.7 Level of Significance After Mitigation

As previously stated, all potential impacts to utilities and service systems as a result of the proposed project would be less than significant, and no mitigation would be required.

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4.17 Wildfire

This section describes the existing wildlife conditions of The Farm in Poway project (proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. A Fire Management Plan (FMP) was prepared for the proposed project in January 2020, and is included as Appendix L of this Environmental Impact Report (EIR).

A Notice of Preparation (NOP) was circulated from May 10, 2019, to June 10, 2019. During the NOP comment period, comment letters related to Wildfires focused on the following topics:

- Increased wildfire risks
- Weed abatement
- Adequate setbacks and defensible space

These comments were considered during the preparation of this EIR. The Initial Study, NOP, and Public Scoping comments are provided in Appendix A of this EIR.

4.17.1 Existing Conditions

Emergency Response

The City of Poway (City) does not have a current emergency response plan or evacuation routes, however they do administer the Community Emergency Response Team (CERT) Program, which educates the residents of Poway and adjacent cities about disaster preparedness. Once a year, the City offers a CERT academy, which provides training in basic disaster response skills such as fire safety, simple search and rescue, and basic first aid, terrorism, emergency preparedness, and disaster psychology. Graduates of the program or an equivalent CERT course are eligible to apply for membership in Poway's CERT and are required to attend two trainings of community events each year.

The project site is located within the service boundary of the Poway Fire Department (PFD). The PFD is an all-hazard, all-risk response agency that services the City. PFD has four divisions: (1) Logistics/Support Division, (2) Operations/EMS Division, (3) Training/Safety Division, and (4) the Fire Prevention Division. The San Diego Fire-Rescue Department Emergency Command and Data Center are contracted by PFD for dispatching services (City of Poway n.d.a). The majority of services requested from the PFD are medical aids, traffic accidents, and wildland fires (during the summer months). As of June 2019, the PFD has five chief officers, 48 sworn fire suppression personnel, three fire prevention staff, one senior administrative assistant, and one disaster preparedness coordinator that provides services to a population of approximately 49,704 in an area covering 39.3 square miles (U.S. Census Bureau 2018). The PFD has 17 personnel that handles emergency and non-emergency calls. The command staff is made up of the Fire Chief (Director of Safety Services), the Deputy Chief/Fire Marshal, and three shift Battalion Chiefs. The Director of Safety Services has the additional responsibility of administering the San Diego County Sheriff's Department law enforcement contract within the City. PFD Fire Station 2 is located less than one-half mile from the project site, at 18194 Westling Court, just off of Espola Road.

Wildfire Risks

A wildfire is a nonstructural fire that occurs in vegetative fuels, excluding prescribed fire. Wildfires can occur in undeveloped areas and spread to urban areas where the landscape and structures are not designed and maintained to be ignition resistant. A wildland-urban interface is an area where urban development is located in proximity to open space or "wildland" areas. The potential for wildland fires represents a hazard where development is adjacent to open space or within close proximity to wildland fuels or designated fire severity zones. Steep hillsides and varied topography within portions of the City also contribute to the risk of wildland fires.

The outbreak and spread of wildland fires within the project area is a potential danger, particularly during the hot, dry summer and fall months. The buildup of dry brush provides fuel to result in potentially larger, more intense wildland fires. Various factors contribute to the intensity and spread of wildland fires: humidity, wind speed and direction, vegetation type, the amount of vegetation (fuel), and topography. The topography, climate, and vegetation of much of the project area are conducive to the spread of wildland fires once started.

The majority of the existing property consists of vegetative cover with the exception of associated parking lots, structures, and tennis courts. Fires that occur in wildland-urban interface areas may affect natural resources as well as life and property. The California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program. These maps place areas of the state into different fire hazard severity zones (FHSZ) based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather where urban conflagration could result in catastrophic losses. As part of this mapping system, land where CAL FIRE is responsible for wildland fire protection and generally located in unincorporated areas is classified as a State Responsibility Area. Where local fire protection agencies, such as the City of Riverside Fire Department, are responsible for wildfire protection, the land is classified as a Local Responsibility Area. In addition to establishing local or state responsibility for wildfire protection in a specific area, CAL FIRE designates areas as Very High Fire Severity Zones (VHFSZs) or non-VHFHSZs. CAL FIRE currently identifies the northeastern portion of the project site as VHFSZ, and the remainder of the project site as non-VFHSZ (CAL FIRE 2009).

Downstream Post-Fire Conditions

The project site is generally gently sloping, with elevations ranging across the site from 725 to 785 feet above mean sea level. The nearest large standing body of water is Lake Poway, located approximately 1.75 miles from the project site. Located approximately .6 miles east of the project site, adjacent to Old Coach Road and Green Valley Truck Trail, is a canyon designated as a Federal Emergency Management Agency/California Department of Water Resources 100-year floodplain (CALOES 2015).

As described in Chapter 7 of The Farm in Poway Specific Plan (Specific Plan), the project site currently accepts stormwater drainage from a number of adjoining properties (The Farm in Poway LLC 2020). The StoneRidge Country Club and associated golf course has three total concrete brow ditches that convey on-site and off-site flows to two separate outflow locations—one to the north and one to the south. An existing brow ditch conveys off-site flows from St. Andrews Drive and flows from the southern portion of the StoneRidge golf course south through the site discharging into a triple arch culvert beneath Espola Road. Additionally, flows from Tam O'Shanter Drive and Cloudcroft Court also are conveyed through the site southerly and are discharged into the same triple arch culvert beneath Espola Road as described above. In the northern portion of the site, flows from Boca Raton Lane flow into a brow ditch and are routed to a pipe that conveys the flow underneath Valle De Lobo Drive & Villamoura Drive, eventually discharging into the open space near Glen Arven Lane. The surrounding northern area on site also discharges into the same outfall (see drainage study included as Appendix F of this EIR).

As concluded in the Geologic Reconnaissance prepared by Geocon Inc. in April 2019 for the proposed project, no evidence of ancient landslide deposits was observed during the site reconnaissance or geologic literature review (Appendix E).

4.17.2 Relevant Plans, Policies, and Ordinances

Federal

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides ("NFPA Documents") are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. NFPA standards are recommended guidelines and nationally accepted good practices in fire protection but are not law or "codes" unless adopted as such or referenced as such by the California Fire Code (CFC) or a local fire agency.

State

California Fire Code

The CFC is Chapter 9 of Title 24 of the California Code of Regulations. It was created by the California Building Standards Commission and is based on the International Fire Code created by the International Code Council. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazards classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every three years. Chapter 15.24 (Fire Code) of the City's Municipal Code provides the City's adopted amendments to the 2019 CFC.

California Department of Forestry and Fire Protection

CAL FIRE is tasked with reducing wildfire-related impacts and enhancing California's resources. CAL FIRE responds to all types of emergencies including wildland fires and residential/commercial structure fires. In addition, CAL FIRE is responsible for the protection of approximately 31 million acres of private land within the state and, at the local level, is responsible for inspecting defensible space around private residences. CAL FIRE is responsible for enforcing State of California fire safety codes included in the California Code of Regulations and the California Public Resources Code. Title 14, Section 1254 of the California Code of Regulations identifies minimum clearance requirements required around utility poles.

California Strategic Fire Plan

In 2010, the State Board of Forestry and Fire Protection issued the California Strategic Fire Plan, a statewide fire plan developed in concert between the State Board of Forestry and Fire Protection and CAL FIRE. Goals included improved availability and use of information on hazard and risk assessment, land use planning, development of shared vision in plans such as CWPPs, establishment of fire resistance in assets at risk, shared vision among fire protection jurisdictions and agencies, levels of suppression, and post-fire recovery.

In support of this plan, several policies are noted, including creation of defensible space, improving home fire resistance, fuel hazard reduction that creates resilient landscapes and protects wildland and natural resources, adequate and appropriate fire suppression, and commitment by individuals and communities to wildfire prevention and protection through local planning.

The California Strategic Fire Plan's several objectives are as follows: the state will produce tools such as updates to the CAL FIRE very high FHSZ maps, fire history, and data on values and assets at risk; assist government bodies in the development of a comprehensive set of wildland and WUI protection policies; identify minimum key components necessary to achieve a fire safe community; coordinate CAL FIRE Unit Fire Plans with CWPPs; improve regulatory effectiveness, compliance monitoring, and reporting pursuant to Public Resources Code Sections 4290–4291; and participate in public education efforts concerning regulation, prevention measures, and preplanning.

California Public Resources Code

Fire Hazard Severity Zones – Public Resources Code Sections 4201–4204

Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189 direct CAL FIRE to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as FHSZ, define the application of various mitigation strategies to reduce risk associated with wildland fires. The project site is not designated as a fire hazard severity zone within the Local Responsibility Area for Escondido (CAL FIRE 2009). However, as stated above, CAL FIRE identifies the project site as Very High Fire Severity Zone (VHFSV).

Local

Multi-Jurisdictional Hazard Mitigation Plan

The Multi-Jurisdictional Hazard Mitigation Plan includes an overview of the risk assessment process, vulnerability assessments, and identifies hazards present in each jurisdiction in the County of San Diego (County). Hazards profiled in the plan include wildfire, structure fire, flood, coastal storms, erosion, tsunami, earthquakes, liquefaction, rain-induced landslide, dam failure, hazardous materials, incidents, nuclear materials release, and terrorism. The plan is a comprehensive resource document that serves many purposes such as enhancing public awareness, creating a decision tool for management, promoting compliance with State and Federal program requirements, enhancing local policies for hazard mitigation capability, and providing inter-jurisdictional coordination. The City is one of the 22 participating jurisdictions. The plan sets forth a variety of objectives and actions based on a set of broad goals including: (1) promoting disaster-resistant future development; (2) increased public understanding and support for effective hazard mitigation; (3) building support of local capacity and commitment to become less vulnerable to hazards; (4) enhancement of hazard mitigation coordination and communication with federal, state, local and tribal governments; and (5) reducing the possibility of damage and losses to existing assets, particularly people, critical facilities or infrastructure, and County-owned facilities, due to dam failure, earthquake, coastal storm, erosion, tsunami, landslides, floods, structural fire/wildfire, and manmade hazards.

Helicopters and small planes are used in a variety of emergency response actions such as search and rescue operations and retrieving water to extinguish wildfires. During an emergency response, aircraft tend to fly low to the ground thus increasing the potential hazards to aircraft from towers and other objects within airspace. CAL

FIRE and the San Diego County Sheriff's Department Aerial Support Detail, Air Support to Regional Enforcement Agencies (ASTREA) base carry out emergency response actions.

Section 5.9 of the Multi-Jurisdictional Hazard Mitigation Plan is specific to the City. Listed below are the applicable draft Poway-specific hazard mitigation goals, objectives, and related potential actions.

Goal 1. Promote resistance to the effects of disasters upon development and infrastructure.

Goal 2. Promote public understanding, support and demand for effective hazard mitigation.

Goal 3. Reduce the possibility of damage and losses to people, existing assets and critical facilities/infrastructure due to: wildfires, flooding, geological hazards (landslide, rockslide, earthquake), and manmade hazards.

Objective 3.A: Plan and prepare for damage and loss from wildfire.

- Action 3.A.4: Update road access, surface, and grade for fire safety equipment at identified locations.

Goal 4. Reduce possibility of damages and losses to existing assets, particularly people, critical facilities/infrastructure and city owned facilities due to severe weather, including extreme heat and drought.

The City also identified which jurisdictional goals, objectives, and action items shall be prioritized, the coordinating individual or organization, the potential funding source, and the implementation timeline (County of San Diego 2018).

4.17.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to wildfire are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to wildfire would occur if the project would:

1. Substantially impair an adopted emergency response plan or emergency evacuation plan (this threshold is covered in Section 4.8, Hazards and Hazardous Materials).
2. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
3. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
4. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

4.17.4 Impacts Analysis

Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Refer to Section 4.8.4, Hazards and Hazardous Materials, for discussion of this topic. As discussed therein, all impacts would be less than significant.

Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

As previously discussed, the project site is generally gently sloping, and surrounded by existing residential development. The northeastern portion of the project site as VHFSZ, and the remainder of the project site as non-VFHSZ. As outlined in the Specific Plan, the portion of the project site within the VHFSZ is subject to the following standards (The Farm in Poway LLC 2020):

1) California Building Code Chapter 7A and Poway Municipal Code [Chapter] 15.24 shall apply to all areas within the VHFHSZ.
2) An effective fuel modification zone shall be maintained around all structures by removing, clearing, or modifying combustible vegetation and other flammable materials from areas within 30 to 100 feet from each building or structure within the property's boundaries, or as determined by the fire code official.
3) Horizontal clearance from tree crowns to structures shall be pruned to maintain a minimum of 10 feet for fire resistive trees and 30 feet for non-fire resistive trees. Tree crowns within the defensible space shall be pruned to remove limbs located less than six feet above the ground surface adjacent to the trees. Portions of tree crowns that extend within 10 of the outlet of a chimney shall be pruned to maintain a minimum horizontal clearance of 10 feet. No more than three trees per cluster; minimum distance between clusters or individual non-clustered trees is 20 feet.
4) All orchards, groves, and vineyards shall be kept in a healthy state and maintained as described below. A 10-foot firebreak shall be cleared between the perimeter of the orchard trees or row of grape vines and native vegetation or ornamental landscaping. Orchards shall be kept clean of dead and/or downed trees. Orchards and vineyards shall be free of combustible debris including, but not limited to, dead branches and dead foliage. All dead grasses between rows of trees or vines shall be removed.
5) An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings will be constructed. A water analysis shall be performed to establish the adequacy of the existing water mains and all necessary system design to serve the project. Costs of the water analysis shall be the responsibility of the applicant. The required fire flow in the VHFHSZ shall be a minimum of 1,500GPM [gallons per minute]; all areas not located in the VHFHSZ shall meet the requirements outlined in the PMC.
6) All flammable vegetation within approved fuel modification zones shall be removed prior to the arrival of combustible material on the site and shall be maintained during the duration of the project until all elements of approved fuel modification zones are installed and approved.
7) Buildings shall be setback a minimum of 30 feet from property lines and biological open space easements unless the Poway Municipal Code requires a greater minimum. When the property line abuts a roadway, the setback shall be measured from the farthest roadway edge.
8) Ignition Resistant Class I construction as described in the California Building Code Chapter 7A, is required for all facilities, buildings, and structures.
9) All facilities and buildings located in the VHFHSZ are required to comply as follows:
    - Single-story structures shall be setback a minimum 15 feet horizontally from top of slope to the farthest projection from a roof.
    - A single-story structure shall be less than 12 feet above grade.
    - A two-story structure shall be setback a minimum of 30 feet horizontally from top of slope to the farthest projection from a roof.

- Structures greater than two stories may require a greater setback when the slope is greater than 2:1.
- Structural setbacks shall be shown on the site plan.
- Show scaled cross section profiles denoting the top of the slope, building/roof projections, and the setback distance at multiple locations on the plan submittal.

10) All residential facilities and buildings located in the VHFHSZ are required to comply with Section 4 of the City of Poway Landscape and Irrigation Design Manual and Poway Municipal Code [Chapter] 15.24 as it relates to fuel management and defensible space, except that thirty feet of fuel management meeting Zone A is required measured outward from the furthest projection of all facilities and buildings. A vegetation fuel modification zone with a minimum width of 10 feet shall be maintained on both sides of all fire apparatus access roadways and driveways not already located in a fuel management area.

Although the remainder of the Specific Plan area is not designed as VHFHSZ, fire remains a serious concern for all new residential development throughout the State of California. Pursuant to implementation of the Specific Plan, throughout the entire Specific Plan area, the following standards for fire safety shall apply to all new construction (The Farm in Poway LLC 2020):

1) All new development shall be subject to the requirements and recommendations of The Farm in Poway Fire Management Plan [see Appendix L].
2) Ensure water pressure serving proposed structures shall provide a minimum 20 PSI [pounds per square inch] with a minimum two hour duration for all plumbing fixtures and fire sprinkler heads in each structure.
3) Fire hydrants shall be located within 600 feet of any portion of residential facilities or buildings, with spacing between hydrants not to exceed 600 feet, as measured by an approved route of travel that a fire engine would travel. Fire hydrants shall be located within 400 feet of any portion of nonresidential facilities or buildings, with spacing between hydrants not to exceed 400 feet, as measured by an approved route of travel that a fire engine would travel.
4) Fire apparatus access roads shall have an unobstructed, improved width of not less than 20 feet, except single-family residential driveways serving no more than two improved parcels containing dwelling units shall have a minimum of 16 feet of unobstructed improved width. Vertical overhead clearance shall be a minimum of 13.5 feet. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus not less than 75,000 pounds unless authorized by the Poway Fire Department and shall be provided with an approved paved surface as to provide all-weather driving capabilities. When deemed necessary in the opinion of the fire code official, a paved driving surface shall mean asphalt or concrete surface. The turning radius of a fire apparatus access road shall be a minimum of 28 feet as measured to the inside edge of the improvement width or as approved by the fire code official.
5) Fire access roadways, gated entrances with card readers, guard stations, or center medians, which have separated lanes of one-way traffic shall be not less than 12 feet wide per lane.
6) Approved signs or other approved notices shall be provided and maintained for fire apparatus access roads to identify such roads and prohibit the obstruction thereof or both. All new public roads, all private roads within major subdivisions, and all private road easements serving four or more parcels shall be named. Road name signs shall comply with City of Poway Supplemental Engineering Standards, Street Sign Specifications.

7) For all non-residential facilities or buildings, approved fire apparatus access roadways shall be provided for every facility, building or portion of a building. The fire apparatus access roadway shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.
8) The gradient for a fire apparatus access roadway shall not exceed 20 percent. Grades exceeding 15 percent (incline or decline) shall be constructed of Portland cement concrete (PCC), with a deep broom finish perpendicular to the direction of travel, or equivalent, to enhance traction. The fire code official may require additional mitigation measures where he or she deems appropriate.
9) The angle of departure and the angle of approach of a fire access roadway shall not exceed seven degrees (12 percent) or as approved by the fire code official.
10) All dead-end fire access roads in excess of 150 feet in length shall be provided with approved provisions that allow emergency apparatus to turn around. For these fire access roads in excess of 150 feet in length, a cul-de-sac shall be provided in residential areas where the access roadway serves more than two structures. The minimum, unobstructed paved radius width for a cul-de-sac shall be 38 feet in residential areas.
11) All gates or other structures or devices that could obstruct fire access roadways or otherwise hinder emergency operations are prohibited unless they meet the standards approved by the fire code official and receive Specific Plan approval. All automatic gates across fire access roadways and driveways shall be equipped with approved, emergency, key-operated switches overriding all command functions and opening the gate(s). Gates accessing more than four residences or residential lots, or gates accessing hazardous institutional, educational or assembly occupancy group structures shall also be equipped with approved emergency traffic control-activating strobe light sensor(s), or other devices approved by the fire code official, which will activate the gate on the approach of emergency apparatus with a battery backup or manual-mechanical disconnect in case of power failure. In the event of a power failure, the gate shall be automatically transferred to a fail-safe mode allowing the gate to be manually pushed open without the use of special knowledge or equipment. All automatic gates must meet fire department policies deemed necessary by the fire code official for rapid, reliable access. Where this section requires an approved key-operated switch, it shall be dual keyed or dual switches shall be provided to facilitate access by law enforcement personnel.
12) All one and two-family residential facilities require an approved residential fire sprinkler system with a one-inch meter meeting Poway Municipal Code requirements. A separate plan submittal and approval to the Poway Fire Department, Division of Fire Prevention, prepared by a licensed sprinkler contractor or fire protection engineer is required for each residential sprinkler system prior to installation. There is a separate fee for this plan check and inspection services. If a one-inch lateral off the street main is currently not present, one will have to be installed. If a pressure pump is required for fire sprinkler operation, auxiliary power is required.
13) Fire sprinkler system may be required in accordance with Poway Municipal Code requirements. The fire sprinkler system shall be designed to meet minimum design density at the roof per NFPA 13 requirements. Two separate plan submittals to the fire department will be required for each structure, one for the fire sprinkler design and one for the fire service underground. There are separate fees for this plan check and inspection services.
14) Non-residential facilities and buildings equipped with a fire sprinkler system shall have a properly licensed contractor install an automatic fire alarm system to approved standards. System shall be completely monitored by a UL listed central station alarm company or proprietary remote station. Each facility or building requires a separate plan submittal for review and approval. There is a separate fee for this plan check and inspection services.

15) The landscape plan requires a separate landscape and irrigation plans submittal prepared pursuant to the City of Poway Landscape and Irrigation Design Manual requirements. There is a separate fee for this plan check and inspection services. The applicant shall submit and receive signed approval of landscape and irrigation plans prior to the issuance of the building permit. All fuel modifications shall be installed prior to the final inspection for issuance of a certificate of occupancy.
16) Roadway access, water supply system, and vegetation fuel modification of common roadway access areas shall be completed in each phase before a building permit is issued for any parcel within the phase.
17) Prior to the delivery of combustible building material on-site, the approved water service to all fire hydrants shall be connected to the public water supply, satisfactorily pass all required tests and be approved by the City.
18) Prior to the delivery of combustible building material on-site, the approved vehicle access, including driveways, for firefighting shall be installed, satisfactorily pass all required tests and approved by the City. All accesses shall be provided within 150 feet of all construction areas. Use of temporary vehicle access for firefighting shall require plan submittal, review and approval by the City.
19) Approved numbers or addresses shall be placed on all facilities and buildings in such a position as to be plainly visible and legible from the street fronting the property. Numbers shall contrast with their background. The address is required at private driveway entrances. Each non-residential facility or building address shall also be displayed on the roof in a manner satisfactory to the Director of Safety Services, and meeting Sheriff Department-ASTREA criteria.

In addition, all new development shall be required to comply with the FMP prepared for the proposed project (Appendix L). As discussed therein, compliance with the FMP would significantly reduce the probability of flame impingement from wildfires burning on the adjacent development and undeveloped properties, and of structure loss due to the onslaught of airborne embers (Appendix L). Furthermore, the proposed project would also meet requirements for slope stability and erosion control through compliance with the recommendations and requirements of the FMP. See Table 4.0, Table of Required Actions, in Appendix L for additional information. Considering the proposed project site is not adjacent to wildlands, has been previously developed, is located in an area surrounded by residential uses, and is subject to all applicable state and local regulations as well as the standards set forth in the Specific Plan, impacts would be **less than significant**.

Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project proposes the development of residential single-family homes, amenities, a multi-use trail system, roadways and other uses pursuant to the Specific Plan that directly serve the planning area. The infrastructure proposed would include roadways, fuel modification buffers, and utilities, however, the construction and operation of the proposed infrastructure would be in compliance with applicable state and local standards regulating fire risk. For example, as stated in the Specific Plan, all dead-end fire access roads in excess of 150 feet in length shall be provided with approved provisions that allow emergency apparatus to turn around. A cul-de-sac shall be provided in residential areas where the access roadway serves more than two structures. The minimum, unobstructed paved radius width for a cul-de-sac shall be 38 feet in residential areas. The Specific Plan also requires that all fuel modifications shall be installed prior to the final inspection for issuance of a certificate of occupancy. Roadway access, water supply system, and vegetation fuel modification of common roadway access areas shall be completed in each phase before a building permit is issued for any parcel within the phase.

Moreover, the proposed project would be required to comply with the requirements and recommendations of the FMP. See Table 4.0 in Appendix L for additional information.

Construction of the access roads and utilities would have the potential to result in impacts related to construction air quality, noise, cultural resources, biological resources, and other resource areas. These impacts are evaluated within the context of the entire project in Sections 4.1 through 4.16 of this EIR. Thus, for purposes of this section, and so as not to be duplicative of others, physical impacts related to the provision or alteration of fire protection facilities would be **less than significant**.

Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

As further discussed in Section 4.9, Hydrology and Water Quality, the proposed project is not expected to increase site or downstream flooding as the grading plan is designed to drain all stormwater from within the project area to swales that convey water to streets or to drain stormwater directly to private streets. Additionally, the project would establish pollution prevention strategies including design standards for trash enclosures, best management practices for agricultural uses, and a certified Stormwater Pollution Prevention Plan for construction that are specifically designed to protect stormwater from potential contamination.

As concluded in the Geological Reconnaissance report, no evidence of ancient landslide deposits was observed during the site reconnaissance or geologic literature review completed for the proposed project (Appendix E). The proposed project would also conform to design requirements associated with proper site preparation and grading practices and would implement surface drainage recommendations outlined in the Geological Reconnaissance (Appendix E).

A number of detention basins are planned throughout the site to that the surface shall slope toward suitable subdrainage outlet facilities (Appendix F). As concluded in the Drainage Study prepared for the project in January 2020, the project does not increase runoff in the 100-year storm event because of the on-site flood attenuation. Since there will be no increase in runoff, there will be no negative impacts to downstream drainage facilities (Appendix F).

Finally, the proposed project would be required to comply with the recommendations and requirements of the FMP. As discussed therein, the proposed project would fulfill requirements for slope stability and erosion control through compliance with the recommendations and requirements of the FMP (Appendix L).

Considering the minimal alterations to existing hydrological conditions, lack of landslide evidence, implementation of best management practices and geotechnical recommendations, and compliance with the FMP, potential impacts associated with post-fire flooding, runoff, or slope instability would be **less than significant**.

4.17.5 Cumulative Impacts

The cumulative context considered for project wildfire impacts is the County. As discussed in Section 4.17.1, Existing Conditions, CAL FIRE has mapped areas of fire hazards in the state through its Fire and Resources Assessment Program, based on fuels, terrain, weather, and other relevant factors. The cumulative projects listed in Table 3-2, Cumulative Projects, would also be required to comply with County Fire and Building Codes, and applicable jurisdictional codes and regulations.

As described above, portions of the northeastern area of the project site would be located in a VHFHSZ. Such zones are also located adjacent to the project site to the north and east (See Figure 4.13-1, Very High Fire Hazard Severity Area [VHFHSZ] Map) (City of Poway 2010). The proposed project, combined with other projects in the region, would increase the population and/or activities and ignition sources in the project area, which may increase the chances of a wildfire and increase the number of people and structures exposed to risk of loss, injury, or death.

Individual projects located within the City are required to comply with applicable City Building Codes, which have been increasingly strengthened as a result of severe wildfires that have occurred in the last two decades in the San Diego area. The Fire and Building codes include fire prevention and protection features that reduce the likelihood of a fire igniting on a specific project and spreading to off-site vegetated areas. These codes also protect projects from wildfires that may occasionally occur in the area through implementation of brush management/fuel management zones, ensuring adequate water supply, preparation of Fire Protection Plans, and other measures. Particularly fire-prone projects may also enter into a Fire Service Agreement, which result in additional project-provided funding to the fire agencies to augment response capabilities. Fire agencies such as the Poway Fire Department use the funding to provide the personnel and apparatus needed to respond to the types of emergencies that will be generated from the cumulative projects. The fire and building codes and funding stream are intended to offset the potential impacts so that fire service can be provided and people and structures are not exposed to significant risk of loss, injury, or death involving wildland fires.

Furthermore, other cumulatively considerable projects would be required to comply with the City's vegetation clearance requirements, as outlined in the Annual Vegetation Management Program, and Chapter 8.76, Defensible Space, Vegetation Management and Waste Accumulations of the City's Municipal Code to reduce the fuel load on vacant and developed properties in the City. The County Fire and Building codes, along with project-specific needs assessments and FMP requirements, ensure that every project approved for construction includes adequate emergency access. Roads are required to meet widths, all-weather surface, and be capable of supporting the imposed loads of responding emergency apparatus.

Lastly, the County Department of Planning and Development Services reviews applications for building permits for compliance with the California Building Code, local amendments to the California Building Code, and County Zoning Ordinance Section 87.209. Grading plans would also be reviewed for compliance with state and local standards, thus ensuring cumulative projects would minimize potential impacts related to landslide. Therefore, cumulative impacts related to wildfire hazards and emergency response and access would be **less than significant.**

4.17.6 Mitigation Measures

The proposed project would not result in any significant impacts related to wildfire; therefore, no mitigation is required.

4.17.7 Level of Significance After Mitigation

As analyzed in Section 4.17.4, Impacts Analysis, implementation of the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan; exacerbate wildfire risks and thereby pollutant concentrations; require the installation of infrastructure that may exacerbate fire risk; or expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. As such, impacts would be less than significant and no additional mitigation is required.

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5 Other CEQA Considerations

5.1 Effects Found Not to Be Significant

Section 15128 of the California Environmental Quality Act (CEQA) guidelines (14 CCR 15000 et seq.) requires that an Environmental Impact Report (EIR) briefly describe potential environmental effects that were determined not to be significant and therefor were not discussed in detail in the EIR. The environmental issues discussed in the following sections are not considered significant, and the reasons for the conclusion of non-significance are discussed below.

5.1.1 Agriculture and Forestry Resources

Would the project:

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

The project site is principally located in urban areas within the City of Poway (City). No area within the project boundary is designated as, adjacent to, or in close proximity to any land classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in accordance with the California Important Farmland Finder located within the Mapping and Monitoring Program of the California Resources Agency. The project site is designated as an "urban and built-up area." Directly adjacent to the project site to the east, is classified as "other land" due its topography, and low potential to be utilized as farmland. Further to the east, segments of farmland of "local importance", and "unique farmland" is present. However, the proposed project is not located on and classified farmland, therefore there would be no intention of converting prime farmland, unique farmland, or farmland of statewide importance. **There would be no impact as a result of the proposed project.**

2. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The proposed project does not conflict with existing zoning for agricultural use. The current zoning for the project site is Open Space – Recreation (OS-R), and surrounding zoning is designated as Planned Communities (PC), Residential (R), and Planned Residential Development (PRD). Current zoned uses for agricultural purposed do not exist in the site, or in close proximity to the site. The site is approximately 0.3 miles from an Open Space – Resource Management (OR-RM), Blue Sky Ecological Reserve. The project site is also not in conflict with a Williamson Act Contract, therefore **no impact would occur as a result of the proposed project.**

3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51004[g]), and
4. Result in the loss of forest land or conversion of forest land to non-forest use?

As stated above, the project site is located within an urban area, and is not classified or zoned for timberland or forestland. Additionally, the area within, adjacent to, or in close proximity to the project site has no forest land that can support 10 percent native tree cover nor does it have any timberland. **No impact would occur as a result of the proposed project.**

5. Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland, to non-agricultural use or the conversion of forest land to non-forest use?

As stated above, the project site is located within a designated "urban and built-up area," and is not located on farmland. Additionally, the proposed project would not plan to expand in future phases or involve any changes in the existing environment, which could result in the conversion of farmland or forest land. The area within, adjacent to, or in close proximity to the project site has no forest land that could support 10 percent native tree cover, therefore **no impact would occur as a result of the proposed project.**

5.1.2 Mineral Resources

Would the project:

1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? And,
2. Result in the loss of availability of locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The City is located in the Western San Diego County Production-Consumption (P-C) Zone according to the California Mineral Land Classification System. The County of San Diego Guidelines for Determining Significance Mineral Resources show the project site, along with the majority of the City, as being located in Mineral Resource Zone (MRZ) 3. MRZ-3 areas contain known mineral deposits that may qualify as mineral resources, however; further exploration work within these areas would need to occur to reclassify into the MRZ-2 category—areas with mineral resources present (County of San Diego 2008).

Furthermore, according to the Poway Comprehensive Plan: General Plan (General Plan), the only known valuable mineral resource within the City, as recognized by the California Department of Conservation, Division of Mines and Geology, is construction quality sand and gravel, which is located in the South Poway area (City of Poway 1991). The project site is located in the northern portion of the City, and there are no known mineral resources within the project site. Additionally, according to the State of California Department of Conservation, California Geologic Energy Management Division (formerly Division of Oil, Gas, and Geothermal Resources), there are no gas, geothermal, or other known wells located on or within two miles of the project site (DOC 2019). Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the state, and **no impact would occur as a result of the proposed project.**

The City's General Plan does not identify any zones of locally important mineral resources within or around the project site. Additionally, the project site is located within a highly urbanized area of the City. Mineral extraction land uses would be incompatible with the existing and planned land uses within and around the project site. Therefore, **no impact to locally important mineral resources would occur as a result of the proposed project.**

5.2 Growth-Inducing Effects

5.2.1 Population and Housing

Section 15126.2(e) of the CEQA Guidelines mandates discussion of the growth-inducing nature of a proposed project. This CEQA Guideline states the growth-inducing analysis is intended to address the potential for the proposed project to "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Further, the CEQA Appendix G Checklist (Population and Housing) also mandates that a CEQA document speak to the proposed project's likelihood to induce substantial population growth in an area, either directly (e.g., by proposing new homes or businesses) or indirectly (e.g., through extension of roads or other infrastructure).

A project may be distinguished as either facilitating planned growth or inducing unplanned growth. Facilitating growth is relating to the establishment of direct employment, population, or housing growth that would occur within a project site. Inducing growth is related to lowering or removing barriers to growth or by creating an amenity or facility that attracts new population/economic activity. For purposes of this EIR analysis, a significant growth inducement impact would occur if the proposed project, and associated infrastructure improvements, directly or indirectly removes obstacles to growth such that the induced growth would significantly burden existing community services, the environment, or cause a demand for general plan amendments. This section contains a discussion of the growth-inducing factors related to the proposed project and as defined under CEQA Guidelines, Section 15126.2(d). A project is defined as growth inducing when it directly or indirectly:

- Fosters population growth
- Fosters economic growth
- Includes the construction of additional housing in the surrounding environment
- Removes obstacles to population growth
- Taxes existing community service facilities, requiring construction of new facilities that could cause significant environmental effects
- Encourages or facilitates other activities that could significantly affect the environments, either individually or cumulatively

It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

As discussed in Section 4.12, Population and Housing, the proposed project would directly induce growth through the development of 160 residential units and community amenities, which would introduce at least approximately 500 residents to the area. The proposed project's estimated population is based on the population rate coefficient of 3.12 persons per dwelling unit, as established by The U.S. Census Bureau's average persons per household number for the City (U.S. Census Bureau 2017). The proposed project would not, however, indirectly induce a growth in population, as no extension of infrastructure is proposed beyond what is required to adequately serve the proposed project.

The San Diego Association of Governments (SANDAG) Series 13 Regional Growth Forecast projects population and housing estimates for the City and relies, in part, on individual jurisdiction's planning documents, such as the City's General Plan. Because the project proposes a General Plan amendment and rezone, the estimated population of

500 people would not have been accounted for in SANDAG's projections. Therefore, as further analyzed in Section 4.12, the proposed project's induced population would exceed these projections by 500 people.

There is no exact number or percentage available to determine whether this estimated introduction of 500 people would be considered a substantial increase in population. However, SANDAG's Series 13 Regional Growth Forecast is intended to be used as a starting point for regional planning as opposed to a prescribed growth pattern (SANDAG 2013). Although the City determined that there are adequate sites available with appropriate designations/zoning to accommodate the remaining Regional Housing Needs Assessment allocation for the current Housing Element planning period, the City has the discretion to adjust allocated housing units/sites as necessary to balance proposed plans for residential development with approved/constructed residential development.

Additionally, the estimated buildout of the proposed project would be approximately four years, and carry over into the next Regional Housing Needs Assessment and City's Housing Element planning period, in which both SANDAG and the City would be again required to assess the housing needs allocation and the ability for the City to meet its housing requirement. Further, the proposed project is an infill development that is surrounded by other residential uses, and therefore would not indirectly induce growth beyond the actual residences added by the proposed project itself. Therefore, while the proposed project would directly induce growth beyond current estimates and forecasts, it would not be considered substantially growth inducing, and **impacts would be less than significant.**

5.3 Mandatory Findings of Significance

Section 15065(a) of the CEQA Guidelines states that a lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur:

1. The project has the potential to: substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife species population to drop below self-sustaining levels; threaten to eliminate a plant or animal species community; substantially restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or pre-history.
2. The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
3. The project has possible environmental effects that are individually limited but cumulatively considerable; meaning that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.
4. The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

The resource topics found to have mandatory findings of significance are provided in detail within the previous Sections 4.0 through 4.17, Environmental Analyses.

5.4 Significant Unavoidable Impacts

CEQA Guidelines, Section 15126.2(c), requires that an EIR describe any significant impacts that cannot be avoided, including those impacts that can be mitigated but not reduced to a less-than-significant level. Chapter 4,

Environmental Analysis, of this EIR describes the potential environmental impacts of the proposed project and recommends mitigation measures to reduce impacts, where feasible. As discussed in this EIR, implementation of the proposed project would result in potentially significant impacts to air quality, biological resources, cultural and tribal resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and transportation. However, these significant impacts would all be mitigated to a less-than-significant levels. The proposed project would not result in any significant and unavoidable impacts.

5.5 Significant Irreversible Environmental Changes

CEQA Guidelines, Section 15126.2(d), requires that an EIR identify any significant irreversible environmental changes associated with the proposed project. Such changes include, for example, the intensification of land use or irreversible damage from environmental accidents associated with the proposed project. Implementation of the proposed project would result in irreversible environmental changes. Approval of the project would involve the development of 160 single-family residential units, and associated open space and roadway improvements both on- and off-site. Development includes direct impacts to biological resources (see Section 4.3, Biological Resources). Although mitigated to a less-than-significant level, impacts would still be considered irreversible.

Further, construction and operation of the proposed project would require the use of resources that include but are not limited to soils, gravel, concrete, and asphalt; lumber and other related forest products; petrochemical construction materials; steel, copper, and other metals; water; fuels; commercially available cleaning and agricultural products; and energy. As such, the proposed project would result in the long-term use of fossil fuels and other nonrenewable resources.

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6 Alternatives

6.1 Introduction

This chapter summarizes The Farm in Poway project (proposed project) to allow for an evaluation of its comparative merit with a range of reasonable potentially feasible alternatives. The proposed project would include the development of 160 homes, amenities such as a multi-purpose event venue, a café, a fitness center, and open space and recreational uses such as parkland, trails, community gardens, and small-scale agriculture. The project site is approximately 117.2 acres. Residential land uses would compose approximately 33.85 acres and would range in density from 2.5 to 10.7 dwelling units per acre. Open space uses would compose approximately 70.37 acres and would be comprised of 55.72 acres of Open Space – Conservation (OS-C) and 14.65 acres of Open Space – Recreational (OS-R). Approximately 12.96 acres would be private streets. Please refer to Chapter 3, Project Description, for a complete description of the proposed project.

As discussed in this Environmental Impact Report (EIR), implementation of the proposed project would result in potentially significant impacts to air quality, biological resources, cultural and tribal resources, geology and soils, greenhouse gas (GHG) emissions, hazards and hazardous materials, noise, and transportation. However, these significant impacts would all be mitigated to a less-than-significant levels. The proposed project would not result in any significant and unavoidable impacts.

6.2 Scope and Purpose

Section 15126.6(a) of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) requires that an EIR "describe a range of reasonable alternatives to the Project, or to the location of the Project, that would feasibly attain most of the basic objectives but would avoid or substantially lessen any of the significant environmental effects of the Project, and evaluate the comparative merits of the alternatives" (14 CCR Section 15126.6a). Section 15126.6(a) also provides that an EIR need not consider every conceivable alternative to a project. Instead, the EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation, but is not required to consider alternatives that are infeasible. There is no ironclad rule governing the nature or scope of the alternatives to be discussed in an EIR, other than the "rule of reason," which specifies that an EIR should only discuss those alternatives necessary to foster meaningful public participation and informed decision making. CEQA requires consideration of a "No Project" alternative to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project (14 CCR Section 15126.6[e]).

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (California Public Resources Code, Section 21002.1), the purpose of an EIR's alternatives discussion is to focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if the alternatives would impede to some degree the attainment of the project's objectives or be more costly. Further, CEQA requires that an EIR identify the environmentally superior alternative from among the alternatives.

This EIR has evaluated the proposed project's potential significant impacts in numerous environmental categories. This information allows the proposed project to be compared against the merits of each alternative.

6.3 Criteria for Selection, Analysis, and Feasibility of Alternatives

The criteria for the selection and analysis of alternatives are provided in CEQA Guidelines, Section 15126.6(c). The alternatives must (1) meet most of the proposed project objectives, (2) be feasible, and (3) avoid or substantially lessen any significant impacts of the proposed project. The proposed project objectives are contained in Chapter 3 of this EIR and listed below.

The underlying purpose of the proposed project is to revitalize the decommissioned StoneRidge Country Club and associated 18-hole golf course through the development of a new community with unique homes and interrelated open space, recreation, and commercial amenities on approximately 117.2 acres in the City of Poway (City). The following are the project objectives (The Farm in Poway LLC 2020):

1. Preserve over 47 percent of the Specific Plan Area as permanent open space by allowing for the development of an environmentally-friendly conservation community, which can provide a mechanism for financing the long-term maintenance and management of open space as a community amenity.
2. Assist the City in implementing the General Plan's housing goals by providing opportunities for high quality new housing to meet the needs of current and future Poway residents.
3. Provide for 160 homes with a range of housing types that are compatible with the adjacent established residential community.
4. Replace dead and dying vegetation associated with the vacant and blighted golf course with new agricultural uses and naturalized landscaping, thereby restoring the visual character of the neighborhood.
5. Restore the recreational opportunities previously provided by the golf course with a wide range of recreational, educational, and social uses that meet the demands and lifestyles of new and existing residents.
6. Ensure new uses are compatible with new and existing homes by establishing setbacks, design regulations and guidelines, best practices, and performance standards that protect the privacy and quality of life for neighboring properties.
7. Create an internal network of roadways that minimize vehicle traffic impacts to existing neighborhoods and discourage cut-through vehicle traffic.
8. Design narrow, curvilinear, and landscaped roadways that promote low speeds and support safety and comfort for multiple modes of transportation including vehicles, alternative vehicles, pedestrians, bicyclists, and equestrians.
9. Establish a multi-use trail system for pedestrians, bicyclists, and equestrians with connections to major amenities and adjacent neighborhoods.
10. Minimize the environmental impact of new development through best management and low impact development practices, water and energy conservation measures, and green construction.

According to CEQA Guidelines Section 15126.6(b), the alternatives analysis should focus on those alternatives that, if implemented, could eliminate or reduce any of the proposed project's significant environmental impacts. The alternatives will be evaluated to determine if, as anticipated when selected as alternatives, they actually eliminate any significant environmental effects or reduce them to a less-than-significant level. The proposed

project-related impacts are considered to be those that are identified prior to the incorporation or implementation of any mitigation measures.

The potential impacts of the alternative relative to the proposed project will be evaluated to determine the "comparative merits of the alternatives" (14 CCR 15126.6[a]). This analysis will be based, in part, on a comparison to the proposed project's impacts. It also will include a discussion of the relative feasibility of each alternative.

CEQA Guidelines Section 15126.6(f)(1) identifies the factors to be taken into account to determine the feasibility of alternatives. The factors include site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries; and whether the applicant can reasonably acquire, control, or otherwise have access to the alternative site. No one of these factors establishes a fixed limit on the scope of reasonable alternatives. An alternative does not need to be considered if its environmental effects cannot be reasonably ascertained and if implementation of such an alternative is remote or speculative.

In determining the nature and scope of alternatives to be examined in an EIR, CEQA and the case law have stated that local agencies must be guided by the doctrine of "feasibility." As defined by CEQA, "feasible" means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" (Public Resources Code Section 21061.1; see also 14 CCR Section 15364 [same definition but with the addition of "legal" factors]). The concept of feasibility under CEQA also encompasses "desirability" to the extent that desirability is based on a reasonable balancing of the relevant economic, social, technological, and other factors.[1]

6.4 Rationale for the Selection of Alternatives

The criteria discussed above and information received during the CEQA Notice of Preparation and scoping process were used to select alternatives to the proposed project.

The "No Project" alternative must be evaluated along with any impacts (14 CCR 15126.6[e][1]). If the environmentally superior alternative is the "No Project" alternative, the EIR must identify an environmentally superior alternative among the other alternatives (14 CCR 15126[e][2]). See Table 6-1, Environmentally Superior Alternative, for a comparison of the alternatives. In addition, the EIR must identify any alternatives that were considered but rejected by the lead agency, and briefly explain the reasons behind the lead agency's rejection determination.

An EIR need not evaluate the environmental effects of alternatives in the same level of detail as the project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the project. The alternatives discussion is intended to focus on alternatives to the project or its location that 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 proposed project objectives.

In addition to the "No Project" alternative, a reduced density alternative and a reduced development footprint alternative were evaluated in this EIR.

[1] See *City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3rd 401, 417.

6.5 Alternatives Considered but Rejected from Analysis

Alternative Project Location

In accordance with CEQA Guidelines Section 15126.6(f)(2), an alternative location for a project should be considered if development of another site is feasible and if such development would avoid or substantially lessen the significant impacts of the project. Factors that may be considered when identifying an alternative site location include the size of the site, its location, its land use designation under the applicable general plan (or subregional plan), and availability of infrastructure. CEQA Guidelines Section 15126.6(f)(2)(A) states that a key question in addressing an off-site alternative is "whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location."

If another parcel within the City limits were to become available, development of the alternative site would likely result in the same or similar impacts as those identified in this EIR for the proposed project. Those impacts include, among others, traffic, noise, and air quality. Selection of another alternative location may avoid impacts to biological and cultural resources, which are site-specific; however, such impacts associated with the proposed project were found to be less than significant with mitigation. Additionally, the project site is in an area surrounded by residential development and thus constitutes infill and avoids inducing sprawl. In this way, the project site helps to avoid environmentally sensitive areas and minimizes impacts to these other valued lands while aiding the City to meet their housing needs. Thus, another alternate site location is not likely to substantially reduce significant environmental effects as to those resources when compared to the project site.

Further, if an alternative site location were selected, the site would not address the need to revitalize the existing abandoned country club property, along with its ongoing challenges with regard to maintenance and other public health, safety, and welfare concerns (i.e., overgrowth of vegetation, dying trees, and other foliage due to lack of irrigation; unsightly areas adversely affecting neighboring properties and other negative impacts associated with the existing blight). Additionally, as stated, the project site is a former golf course that has fallen into disrepair, and thus, the proposed project's underlying purpose would be frustrated by the selection of an alternative site. Relatedly, the visual quality of the existing site is characterized as low because the property's existing conditions have deteriorated. Redevelopment of the site would eliminate the blighted condition, which is one of the proposed project objectives. These unique site improvement opportunities would not be implemented on site if an alternative site location were selected. For these reasons, at this time, the alternative site location is not considered feasible or desirable.

Alternatives Considered

The proposed project alternatives evaluated include the following:

1. No Project/No Development Alternative
2. Reduced Density Alternative
3. Reduced Development Footprint Alternative

6.6 Analysis of the No Project/No Development Alternative

6.6.1 No Project/No Development Alternative Description and Setting

CEQA requires an evaluation of the "No Project" alternative so that decision makers can compare the impacts of approving a project with the impacts of not approving it. According to CEQA Guidelines Section 15126.6(e), the "No Project" alternative must include the assumption that conditions at the time of the Notice of Preparation (i.e., baseline environmental conditions) would not be changed since the proposed project would not be implemented.

The No Project/No Development Alternative assumes that the proposed project would not be developed, which means there would be no residential, commercial amenities, parkland and trails, community gardens and agriculture, and other community and recreation uses developed on site. Traffic improvements would not be constructed. In its existing condition, the site would remain an unsightly, abandoned, former golf course/clubhouse property.

6.6.2 Comparison of the Effects of the No Project/No Development Alternative to the Proposed Project

In comparing the No Project/No Development Alternative to the proposed project, CEQA provides that the "lead agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (14 CCR 15126.6[e][3][C]).

Below, the No Project/No Development Alternative is compared to the proposed project as though it would remain in its existing condition. The existing site, an abandoned former golf course and country club facility, would retain the underlying Poway Comprehensive Plan: General Plan (General Plan) land use designations and zoning of Open Space – Recreation and would remain in its current condition.

6.6.2.1 Air Quality

The proposed project would have significant impacts associated with daily construction emissions that would exceed the significance thresholds for criteria air pollutants oxides of nitrogen and carbon monoxide, and with the exposure of sensitive receptors to toxic air contaminants (TACs) during construction. During the health risk assessment performed for the proposed project (Appendix B), it was determined that the TAC exposure from construction diesel exhaust emissions would result in cancer risk on site above the 10 in 1 million threshold, potentially exposing sensitive receptors to substantial pollutant concentrations. Additionally, the proposed project would result in a potentially significant cumulative impact from criteria air pollutant emissions during construction. However, these potentially significant impacts would all be reduced to less than significant with mitigation (**MM-AQ-1**). Under the No Project/No Development Alternative, no impacts to air quality would result at this time, because no development would occur. For this reason, impacts to air quality would be less under this alternative when compared to the proposed project.

6.6.2.2 Biological Resources

The proposed project would result in potentially significant impacts to biological resources associated with loss of habitat suitable for nesting birds, loss of wetland/riparian habitat, impacts to jurisdictional waters and wetlands, and loss of mature trees. With implementation of mitigation measures (**MM-BR-1**, **MM-BR-2**, and **MM-BR-3**), the identified impacts to biota would be reduced to less-than-significant levels. Because no demolition or construction would occur, the No Project/No Development Alternative would not result in changes to biological resources. No nesting birds would be disturbed, and all existing trees and habitat would remain in place as of this writing because of the absence of development. For this reason, impacts to biological resources would be less under this alternative when compared to the proposed project.

6.6.2.3 Cultural and Tribal Cultural Resources

The proposed project would have the potential to impact cultural and tribal cultural resources found on the project site. Additionally, the proposed project would have the potential of possibly uncovering previously undetected cultural and tribal cultural resources and human remains. Impacts to cultural resources would be less than significant with the implementation of mitigation measures (**MM-CUL-1** and **MM-CUL-2**) under the proposed project. The No Project/No Development Alternative would not disturb existing buildings or subsurface cultural resources or human remains, as there is no development proposed at this time. For this reason, impacts to cultural and tribal cultural resources would be less under this alternative as when compared to the proposed project.

6.6.2.4 Geology and Soils

The proposed project would have the potential to result in liquefaction and soil erosion, and could create substantial direct or indirect risks to life or property due to expansive soils on site. However, impacts related to liquefaction and soil erosion would be less than significant with mitigation (**MM-GEO-1**) and impacts related to expansive soils would be less than significant with mitigation (**MM-GEO-2**) under the proposed project.

The proposed project would also have the potential to encounter subsurface paleontological resources during grading activities, which would result in a potentially significant impact relative to geology and soils. Impacts to potentially undiscovered paleontological resources would be less than significant with mitigation (**MM-GEO-3**) under the proposed project. The No Project/No Development Alternative would not disturb subsurface soils, as there is no development proposed at this time. For this reason, impacts to geology and soils would be less under this alternative as when compared to the proposed project.

6.6.2.5 Greenhouse Gas Emissions

The proposed project would result in potentially significant impacts as estimated GHG emissions would exceed the 900 metric tons (MT) of carbon dioxide equivalent (CO_2e) per year threshold prior to mitigation. With mitigation (**MM-GHG-1** and **MM-GHG-2**), the proposed project would have a less-than-significant impact. The No Project/No Development Alternative would result in no change in the estimated service population of 40 for the existing golf course. For this reason, impacts related to GHG emissions would be less under this alternative as compared to the proposed project and would be below the significance threshold of 3.7 MT CO_2e per person per year. Therefore, GHG emissions impacts would be less under this alternative as when compared to the proposed project.

6.6.2.6 Hazards and Hazardous Materials

The proposed project would result in potentially significant impacts relative to the demolition of buildings potentially containing asbestos-containing materials, lead-based paint, and universal wastes; electrical components, such as transformers, which could contain polychlorinated biphenyls (PCBs); and potential exposure to groundwater contamination. With mitigation (**MM-HAZ-1** and **MM-HAZ-2**), the proposed project would have a less-than-significant impact. The No Project/No Development Alternative would not disturb subsurface soils, as there is no development proposed at this time. For this reason, impacts to hazards and hazardous materials would be less under this alternative as when compared to the proposed project.

6.6.2.7 Noise

The proposed project would result in potentially significant noise impacts associated with the construction of on-site water detention basins, the construction of Private Street B, and with the operation of the proposed Event Barn and The Social. With implementation of mitigation measures (**MM-NOI-1**, **MM-NOI-2**, **MM-NOI-3**, and **MM-NOI-4**), all impacts associated with noise would be reduced to less-than-significant levels under proposed project conditions. Under the No Project/No Development Alternative, no construction or operational noise impacts would result. For this reason, noise impacts would be less under this alternative when compared to the proposed project.

6.6.2.8 Transportation

The proposed project would result in potentially significant impacts to one intersection: the Pomerado Road/Stone Canyon Road intersection. However, the proposed project would provide mitigation (**MM-TRA-1**) for the intersection, which would reduce impacts under both the Near-Term Plus Project (Opening Year 2025) and Horizon Year Plus Project (2035) scenarios to less-than-significant levels. The mitigation measure would include the modification of the traffic signal at the Pomerado Road/Stone Canyon Road intersection to provide east/west split phasing.

Under the No Project/No Development Alternative, an increase of additional vehicles and vehicular trips, which inherently increases vehicle miles traveled and decreases level of service, would not occur along any roadway or intersection, because there would be no development. For this reason, traffic impacts would be less than significant under the No Project/No Development Alternative when compared to the proposed project.

6.7 Reduced Density Alternative

6.7.1 Reduced Density Alternative Description and Setting

The Reduced Density Alternative would include the development of 25 percent fewer residential units and larger unified lot sizes, for a total of 120 residential units. General Plan Land Use and Zoning Amendments would be required under this alternative, similar to the proposed project. Although fewer units would be developed, the footprint of disturbance to construct the reduced number of residences would be roughly the same as the proposed project, since the lot sizes would be larger. The Reduced Density Alternative would include some open space and recreation amenities, but to a much lesser degree compared to the proposed project, and would not include the Event Barn or The Social.

6.7.2 Comparison of the Effects of Reduced Density Alternative to the Proposed Project

6.7.2.1 Air Quality

The proposed project would have significant impacts associated with daily construction emissions that would exceed the significance thresholds for criteria air pollutants oxides of nitrogen and carbon monoxide, and with the exposure of sensitive receptors to TACs during construction. During the health risk assessment performed for the proposed project (Appendix B), it was determined that the TAC exposure from construction diesel exhaust emissions would result in cancer risk on site above the 10 in 1 million threshold, potentially exposing sensitive receptors to substantial pollutant concentrations. Additionally, the proposed project would result in a potentially significant cumulative impact from criteria air pollutant emissions during construction. However, these potentially significant impacts would all be reduced to less than significant with mitigation (**MM-AQ-1**). Development would still occur under the Reduced Density Alternative, which would result in construction emissions similar to the proposed project. However, since fewer homes would be constructed under this alternative, fewer emissions would occur over a shorter duration. Impacts relative to air quality from the Reduced Density Alternative would be less than the proposed project, but the impact would still remain.

6.7.2.2 Biological Resources

The proposed project would result in potentially significant impacts to biological resources associated with loss of habitat suitable for nesting birds, loss of wetland/riparian habitat, impacts to jurisdictional waters and wetlands, and loss of mature trees. With implementation of mitigation measures (**MM-BR-1**, **MM-BR-2**, and **MM-BR-3**), the identified impacts to biota would be reduced to less-than-significant levels. Development would still occur under the Reduced Density Alternative, and although fewer units would be developed, the footprint of disturbance to construct the reduced number of residences would still result in impacts to biological resources and would be the same compared to the proposed project. Impacts to biological resources would not be reduced or avoided under the Reduced Density Alternative.

6.7.2.3 Cultural and Tribal Cultural Resources

The proposed project would have the potential to impact cultural and tribal cultural resources found on the project site. Additionally, the proposed project would have the potential of possibly uncovering previously undetected cultural and tribal cultural resources and human remains. Impacts to cultural and tribal cultural resources would be less than significant with the implementation of mitigation measures (**MM-CUL-1** and **MM-CUL-2**) under the proposed project. Under the Reduced Density Alternative, development would still occur and the potential to impact the cultural and tribal cultural resources or uncover previously undetected cultural and tribal cultural resources or human remains still exists. Although fewer units would be developed, the footprint of disturbance to construct the reduced number of residences would remain the same under the Reduced Density Alternative. Therefore, impacts would be the same compared to the proposed project. Impacts to cultural and tribal cultural resources would not be reduced or avoided under the Reduced Density Alternative.

6.7.2.4 Geology and Soils

The proposed project would have the potential to result in liquefaction and soil erosion, and could create substantial direct or indirect risks to life or property due to expansive soils on site. However, impacts related to liquefaction and soil erosion would be less than significant with mitigation (**MM-GEO-1**) and impacts related to expansive soils would be less than significant with mitigation (**MM-GEO-2**) under the proposed project.

The proposed project would also have the potential to encounter subsurface paleontological resources during grading activities, which would result in a potentially significant impact relative to geology and soils. Impacts to potentially undiscovered paleontological resources would be less than significant with mitigation (**MM-GEO-3**) under the proposed project. Under the Reduced Density Alternative, although fewer units would be developed, the footprint of disturbance to construct the reduced number of residences would remain the same as the proposed project. Therefore, impacts would be the same compared to the proposed project. Impacts to geology and soils would not be reduced or avoided under the Reduced Density Alternative.

6.7.2.5 Greenhouse Gas Emissions

The proposed project would result in potentially significant impacts as estimated GHG emissions would exceed the 900 MT CO_2e per year threshold prior to mitigation. With mitigation (**MM-GHG-1** and **MM-GHG-2**), the proposed project would have a less-than-significant impact. The Reduced Density Alternative would result in 25 percent fewer residences, which would result in fewer total GHG emissions as compared to the proposed project. For this reason, impacts related to GHG emissions would be less under this alternative as when compared to the proposed project, but the Reduced Density Alternative is still expected to exceed the 900 MT CO_2e per year significance threshold. Therefore, impacts would be similar to the proposed project and mitigation would be required. Impacts related to GHG emissions would not be reduced or avoided under the Reduced Density Alternative.

6.7.2.6 Hazards and Hazardous Materials

The proposed project would result in potentially significant impacts relative to the demolition of buildings potentially containing asbestos-containing materials, lead-based paint, and universal wastes; electrical components, such as transformers, which could contain PCBs; and potential exposure to groundwater contamination. With mitigation (**MM-HAZ-1** and **MM-HAZ-2**), the proposed project would have a less-than-significant impact. Under the Reduced Density Alternative, although fewer units would be developed, the footprint of disturbance to construct the reduced number of residences would remain the same as the proposed project. Therefore, impacts would be the same compared to the proposed project. Impacts to hazards and hazardous materials would not be reduced or avoided under the Reduced Density Alternative.

6.7.2.7 Noise

The proposed project would result in potentially significant noise impacts associated with the construction of Private Street B, and with the operation of the proposed Event Barn and The Social. With implementation of mitigation measures (**MM-NOI-1**, **MM-NOI-2**, **MM-NOI-3**, and **MM-NOI-4**), all impacts associated with noise would be reduced to less-than-significant levels under proposed project conditions. Development would still occur under the Reduced Density Alternative. The Reduced Density Alternative would reduce noise impacts because it would

not include several of the community amenities, such as The Event Barn and The Social. Thus, the Reduced Density Alternative would result in less noise impacts as compared to the proposed project.

6.7.2.8 Transportation

The proposed project would result in potentially significant impacts to one intersection: the Pomerado Road/Stone Canyon Road intersection. However, the proposed project would provide mitigation (**MM-TRA-1**) for the intersection, which would reduce impacts under both the Near-Term Plus Project (Opening Year 2025) and Horizon Year Plus Project (2035) scenarios to less-than-significant levels. The mitigation measure would include the modification of the traffic signal at the Pomerado Road/Stone Canyon Road intersection to provide east/west split phasing.

Under the Reduced Density Alternative, there would be less traffic due to the reduction in residential units. This alternative would trigger the same traffic impacts, but to a lesser degree.

6.8 Reduced Development Footprint Alternative

6.8.1 Reduced Development Footprint Alternative Description and Setting

The Reduced Development Footprint Alternative would eliminate any development or improvements in the southwestern portion of the project site, located along the proposed Private Street B, as well as in the southwest corner of the project site. The reduction in homes would also result in a reduction in open space and recreational amenities.

6.8.2 Comparison of the Effects of Reduced Development Footprint Alternative to the Proposed Project

6.8.2.1 Air Quality

The proposed project would have significant impacts associated with daily construction emissions that would exceed the significance thresholds for criteria air pollutants oxides of nitrogen and carbon monoxide, and with the exposure of sensitive receptors to TACs during construction. During the health risk assessment performed for the proposed project (Appendix B), it was determined that the TAC exposure from construction diesel exhaust emissions would result in cancer risk on site above the 10 in 1 million threshold, potentially exposing sensitive receptors to substantial pollutant concentrations. Additionally, the proposed project would result in a potentially significant cumulative impact from criteria air pollutant emissions during construction. However, these potentially significant impacts would all be reduced to less than significant with mitigation (**MM-AQ-1**). Development would still occur under the Reduced Development Footprint Alternative, which would result in construction emissions similar to the proposed project. However, since fewer homes would be constructed under this alternative, fewer emissions would occur over a shorter duration. Impacts relative to air quality from the Reduced Development Footprint Alternative would be less than the proposed project.

6.8.2.2 Biological Resources

The proposed project would result in potentially significant impacts to biological resources associated with loss of habitat suitable for nesting birds, loss of wetland/riparian habitat, impacts to jurisdictional waters and wetlands, and loss of mature trees. With implementation of mitigation measures (**MM-BR-1**, **MM-BR-2**, and **MM-BR-3**), the identified impacts to biota would be reduced to less-than-significant levels. Development would still occur under the Reduced Development Footprint Alternative. However, eliminating development west of Private Street A would eliminate potentially significant impacts to wetland/riparian habitat and jurisdictional waters and wetlands. Potentially significant impacts with regard to loss of habitat suitable for nesting birds and loss of mature trees would still occur under the Reduced Development Footprint Alternative, though to a lesser degree. Overall, impacts to biological resources would be reduced under the Reduced Development Footprint Alternative.

6.8.2.3 Cultural and Tribal Cultural Resources

The proposed project would have the potential to impact cultural and tribal cultural resources found on the project site. Additionally, the proposed project would have the potential of possibly uncovering previously undetected cultural and tribal cultural resources and human remains. Impacts to cultural and tribal cultural resources would be less than significant with the implementation of mitigation measures (**MM-CUL-1** and **MM-CUL-2**) under the proposed project. However, since development would still occur under the Reduced Development Footprint Alternative, the potential to uncover previously undetected cultural and tribal cultural resources or human remains still exists. Therefore, potentially significant impacts to cultural and tribal cultural resources would be the same under the Reduced Development Footprint Alternative as compared to the proposed project.

6.8.2.4 Geology and Soils

The proposed project would have the potential to result in liquefaction and soil erosion, and could create substantial direct or indirect risks to life or property due to expansive soils on site. However, impacts related to liquefaction and soil erosion would be less than significant with mitigation (**MM-GEO-1**) and impacts related to expansive soils would be less than significant with mitigation (**MM-GEO-2**) under the proposed project.

The proposed project would also have the potential to encounter subsurface paleontological resources during grading activities, which would result in a potentially significant impact relative to geology and soils. Impacts to potentially undiscovered paleontological resources would be less than significant with mitigation (**MM-GEO-3**) under the proposed project. Under the Reduced Development Footprint Alternative, the footprint of disturbance to construct the reduced number of residences would be less; however the potential for liquefaction and soil erosion, and to encounter expansive soils and subsurface paleontological resources still exists. Therefore, the Reduced Development Footprint Alternative would result in the same potential impact as compared to the proposed project.

6.8.2.5 Greenhouse Gas Emissions

The proposed project would result in potentially significant impacts as estimated GHG emissions would exceed the 900 MT CO_2e per year threshold prior to mitigation. With mitigation (**MM-GHG-1** and **MM-GHG-2**), the proposed project would have a less-than-significant impact. The Reduced Development Footprint Alternative would result in fewer residences, which would result in fewer total GHG emissions as compared to the proposed project. For this reason, impacts related to GHG emissions would be less under the Reduced Development

Footprint Alternative as when compared to the proposed project. However, the Reduced Development Footprint Alternative is still expected to exceed the 900 MT CO_2e per year significance threshold. Therefore, impacts would be similar to the proposed project and mitigation would be required. Impacts related to GHG emissions would not be reduced or avoided under the Reduced Development Footprint Alternative.

6.8.2.6 Hazards and Hazardous Materials

The proposed project would result in potentially significant impacts relative to the demolition of buildings potentially containing asbestos-containing materials, lead-based paint, and universal wastes; and electrical components, such as transformers, which could contain PCBs; and potential exposure to groundwater contamination. With mitigation (**MM-HAZ-1** and **MM-HAZ-2**), the proposed project would have a less-than-significant impact. Under the Reduced Development Footprint Alternative, the footprint of disturbance to construct the reduced number of residences would be less and it would not result in development in the southwest corner of the site. Therefore, impacts to hazards and hazardous materials would be reduced under the Reduced Density Alternative as compared to the proposed project.

6.8.2.7 Noise

The proposed project would result in potentially significant noise impacts associated with the construction of on-site water detention basins, with the construction of Private Street B, and with the operation of the proposed Event Barn and The Social. With implementation of mitigation measures (**MM-NOI-1**, **MM-NOI-2**, **MM-NOI-3**, and **MM-NOI-4**), all impacts associated with noise would be reduced to less-than-significant levels under proposed project conditions. Development would still occur under the Reduced Development Footprint Alternative. However, the Reduced Density Alternative would reduce noise impacts because it would not include several of the community amenities, such as The Event Barn and The Social, and it would not include the construction of Private Street B. Thus, this alternative would result in less-than-significant noise impacts and would not require mitigation.

6.8.2.8 Transportation

The proposed project would result in potentially significant impacts to one intersection: the Pomerado Road/Stone Canyon Road intersection. However, the proposed project would provide mitigation (**MM-TRA-1**) for the intersection, which would reduce impacts under both the Near-Term Plus Project (Opening Year 2025) and Horizon Year Plus Project (2035) scenarios to less-than-significant levels. The mitigation measure would include the modification of the traffic signal at the Pomerado Road/Stone Canyon Road intersection to provide east/west split phasing.

Under the Reduced Development Footprint Alternative, the total number of residential units would be reduced. Therefore, impacts relative to these intersections would be reduced. However, the Reduced Development Footprint Alternative would still require mitigation, similar to the proposed project, to reduce the impacts to a level less than significant.

6.9 Determination of Environmentally Superior Alternative

As shown in Table 6-1, implementation of the No Project/No Development Alternative would result in the greatest reduction in significant impacts when compared to the proposed project. Because the No Project/No Development Alternative would result in the least amount of impacts to the environment, it would be the environmentally superior alternative. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the environmentally superior alternative is the "No Project" alternative, the EIR also must identify an environmentally superior alternative among the other alternatives.

Aside from the No Project/No Development Alternative, the Reduced Development Footprint Alternative would result in the least amount of environmental impacts. As compared to the proposed project, impacts associated with air quality, biological resources, hazards, noise, and transportation and traffic would be reduced. Therefore, the Reduced Development Footprint Alternative is identified as the environmentally superior alternative. However, the proposed project would mitigate all of these impacts to a level less than significant. Refer to Table 6-2, Comparison of Alternatives Relative to Project Objectives, for a comparison of each project alternative relative to the proposed project objectives.

Table 6-1. Environmentally Superior Alternative

Issue Areas with Potentially Significant Impacts	Proposed Project	Alternatives Considered		
		1	*2*	*3*
		No Project/No Development	*Reduced Density Alternative*	*Reduced Development Footprint Alternative*
Air Quality	LTS	▼	▼	▼
Biological Resources	LTS	▼	–	▼
Cultural and Tribal Cultural Resources	LTS	▼	–	–
Geology and Soils	LTS	▼	–	–
Greenhouse Gas Emissions	LTS	▼	–	–
Hazards and Hazardous Materials	LTS	▼	–	▼
Noise	LTS	▼	▼	▼
Transportation and Traffic	LTS	▼	▼	▼

Notes: LTS = Less than Significant with mitigation measures.
▲ Alternative is likely to result in greater impacts to issue when compared to Project.
– Alternative is likely to result in similar impacts to issue when compared to Project.
▼ Alternative is likely to result in reduced impacts to issue when compared to Project.

Table 6-2. Comparison of Alternatives Relative to Project Objectives

Objectives	No Project/No Development Alternative	Reduced Density Alternative	Reduced Development Footprint Alternative
1. Preserve over 47% of the Specific Plan Area as permanent open space by allowing for the development of an environmentally-friendly conservation community, which can provide a mechanism for financing the long-term maintenance and management of open space as a community amenity.	NO: The project site would remain in its current condition	PARTIAL: Redevelopment of the site would still occur under this alternative, including the proposed open space and community amenities although to a lesser degree.	PARTIAL: Redevelopment of the site would still occur under this alternative, including the proposed open space and community amenities although to a lesser degree.
2. Assist the City in implementing the General Plan's housing goals by providing opportunities for high quality new housing to meet the needs of current and future Poway residents.	NO: The project site would remain in its current condition; therefore, no housing would be provided.	PARTIAL: Housing would be provided, although to a lesser degree.	PARTIAL: Housing would be provided, although to a lesser degree.
3. Provide for 160 homes with a range of housing types that are compatible with the adjacent established residential community.	NO: The project site would remain in its current blighted condition.	NO: This alternative would not provide 160 homes and would not provide a range of housing types.	NO: This alternative would not provide 160 homes.
4. Replace dead and dying vegetation associated with the vacant and blighted golf course with new agricultural uses and naturalized landscaping, thereby restoring the visual character of the neighborhood	NO: The project site would remain in its current condition; therefore, no housing or recreational opportunities would be implemented.	PARTIAL: this alternative would not include agricultural uses, and would include landscaping although to a lesser degree.	PARTIAL: this alternative would not include agricultural uses, and would include landscaping although to a lesser degree.
5. Restore the recreational opportunities previously provided by the golf course with a wide range of recreational, educational, and social uses that meet the demands and lifestyles of new and existing residents.	NO: The project site would remain in its current condition; therefore, no new uses would be provided.	PARTIAL: This alternative would include some recreational amenities, although to a lesser degree, and would not include the Event Barn or The Social.	PARTIAL: This alternative would include some recreational amenities, although to a lesser degree, and would not include the Event Barn or The Social.

Table 6-2. Comparison of Alternatives Relative to Project Objectives

Objectives	No Project/No Development Alternative	Reduced Density Alternative	Reduced Development Footprint Alternative
6. Ensure new uses are compatible with new and existing homes by establishing setbacks, design regulations and guidelines, best practices, and performance standards that protect the privacy and quality of life for neighboring properties.	NO: The project site would remain in its current condition; therefore, no new uses would be provided.	YES: Similar to the proposed project, this alternative would provide setbacks and standards that protect the privacy and quality of life for neighboring properties.	YES: Similar to the proposed project, this alternative would provide setbacks and standards that protect the privacy and quality of life for neighboring properties.
7. Create an internal network of roadways that minimize vehicle traffic impacts to existing neighborhoods and discourage cut-through vehicle traffic.	NO: The project site would remain in its current condition; therefore, no network of roadways would be built.	YES: this alternative would include internal roadways.	YES: this alternative would include internal roadways.
8. Design narrow, curvilinear, and landscaped roadways that promote low speeds and support safety and comfort for multiple modes of transportation including vehicles, alternative vehicles, pedestrians, and bicyclists and equestrians.	NO: The project site would remain in its current condition; therefore, no network of roadways would be built.	PARTIAL: it is assumed this alternative would not include the same level of off-site road and safety improvements that are afforded by the proposed project.	PARTIAL: it is assumed this alternative would not include the same level of off-site road and safety improvements that are afforded by the proposed project.
9. Establish a multi-use trail system for pedestrians, bicyclists and equestrians with connections to major amenities and adjacent neighborhoods.	NO: The project site would remain in its current condition; therefore, no trail system would be built.	PARTIAL: this alternative would include some recreational open space, such as a trail, although to a lesser degree.	PARTIAL: this alternative would include some recreational open space, such as a trail, although to a lesser degree.
10. Minimize the environmental impact of new development through best management and low impact development practices, water and energy conservation measures, and green construction.	NO: The project site would remain in its current condition; therefore, no development would occur.	YES: it is assumed that this alternative would implement best management and low impact development practices, water and energy conservation measures, and green construction.	YES: it is assumed that this alternative would implement best management and low impact development practices, water and energy conservation measures, and green construction.
Conclusion	This alternative would not meet any of the proposed project objectives.	This alternative would not meet proposed project objective 3 and would only partially achieve proposed project objectives 1, 2, 4, 5, 8, and 9.	This alternative would not meet proposed project objective 3 and would only partially achieve proposed project objectives 1, 2, 4, 5, 8, and 9.

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