CITY OF VISTA
CALIFORNIA

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION P17-0388

PROJECT NAME: Olive Avenue 15-Lot Tentative Subdivision Map & Annexation

PROJECT LOCATION: 1435 Olive Avenue, on the north side of the street between Winter Road (Oceanside) to the west and Granada Drive (Vista) to the east, within unincorporated San Diego County.

APNS: 162-493-30 & 162-493-31

PROJECT APPLICANT:
Steve Ortiz
Olive Avenue LLC
235 West Market Street
San Diego, CA. 92101
(214) 632-6429

LEAD AGENCY:
City of Vista
Community Development Department, Planning Division
200 Civic Center Drive
Vista, California 92084
Michael Ressler, Principal Planner
(760) 643-5382

PUBLIC REVIEW PERIOD: November 14, 2019 to December 16, 2019

This Draft Initial Study/Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code (PRC) Section 21000, et seq.) and the 2019 State CEQA Guidelines (California Code of Regulations (CCR) Section 15000 et seq.). It is available for a 30-day public review period as shown above.

Comments regarding this document should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment that may result from the proposed project, and the ways in which any significant effects are avoided or mitigated. **All comments must be made in writing** and addressed to Mr. John Hamilton, Environmental Planner, City of Vista Planning Division, 200 Civic Center Drive, Vista, California 92084. Comments may also be sent by e-mail to: jhamilton@cityofvista.com. Comments must be received in the Planning Division office no later than 5:00 P.M. on December 16, 2019, which is the last day of the public review period.

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NOTICE OF INTENT
TO ADOPT A MITIGATED NEGATIVE DECLARATION
FOR A DEVELOPMENT PROJECT

In accordance with Section 15072 of the California Environmental Quality Act Guidelines, NOTICE IS HEREBY GIVEN that the City of Vista (City) has prepared a Mitigated Negative Declaration (MND) for the following project:

P17-0388, Olive Avenue 15-Lot Tentative Subdivision Map & Annexation Project

The applicant (Olive Avenue LLC) seeks the approval of an Annexation Request into the city, a General Plan Amendment, a Zone Change, and a Tentative Subdivision Map to grade and construct building pads, install wet and dry utilities, and other associated improvements for a 15-lot single-family development on a 4.94-acre site. No homes are proposed to be built at this time. The site of the proposed project is comprised of two parcels (APN: 162-493-30 and -31) and is located at 1435 Olive Avenue, on the north side of the street between Winter Road (Oceanside) to the west and Granada Drive (Vista) to the east, within unincorporated San Diego County. The project site is not listed on any lists enumerated under Section 65962.5 of the California Government Code.

COPIES of the MND, accompanying Initial Study (IS) and all noted supporting documents are on file and may be reviewed at the City's Planning Division counter, 200 Civic Center Drive, in Vista. The MND/IS (only) may be viewed on the City's web site at the following link: https://www.cityofvista.com/city-services/city-departments/community-development/building-planning-permits-applications/vista-general-plan-2030/environmental-resources. The public review period is from November 14 to December 16, 2019.

A "MITIGATED NEGATIVE DECLARATION" means that the City has tentatively concluded that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures have been identified and incorporated into this project and agreed to by the project proponent. Therefore, the project would not have a significant effect on the environment.

NOTE: This project has not been approved or denied. It is being reviewed for environmental impacts only. COMMENTS regarding the project's environmental impacts as discussed in the MND/IS must be made in writing by 5:00 p.m. on December 16, 2019. Please reference P17-0388 in any correspondence. All comments should be addressed to Mr. John Hamilton, AICP, Environmental Planner, City of Vista Planning Division, 200 Civic Center Drive, Vista, CA 92084-6275. Comments may also be sent by e-mail to: jhamilton@cityofvista.com.

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Chapter 1

INTRODUCTION

CEQA Overview

The City of Vista (COV) Planning Division has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental consequences associated with the proposed Olive Avenue Tentative Subdivision Map (TSM) & Annexation (ANX) Project ("Olive Avenue TSM/ANX" or "project"). As part of the permitting process, the proposed project is required to undergo an environmental review pursuant to CEQA. One of the main objectives of CEQA is to disclose to the public and decision makers the potential environmental effects of proposed activities. CEQA requires that the lead agency prepare an Initial Study to determine whether an Environmental Impact Report, Negative Declaration, or a Mitigated Negative Declaration is needed. The COV's Planning Division is the lead agency for the proposed project under CEQA.

Authority

The preparation of this IS/MND is governed by two principal sets of documents: CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). Specifically, the preparation of an IS and an MND is guided by the State CEQA Guidelines; Section 15063 describes the requirements for an IS, and Sections 15070–15073 describes the process and requirements for the preparation of an MND. Where appropriate and supportive to an understanding of the issues, reference will be made either to the CEQA statute or State CEQA Guidelines. This IS/MND contains all of the contents required by CEQA, which includes a project description, a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, consistency with plans and policies, and names of preparers.

Scope

This IS/MND evaluates the proposed project's effects on the following resource topics:

- aesthetics
- agriculture and forest resources
- 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 planning
- mineral resources
- noise
- population and housing
- public services
- recreation
- transportation
- utilities and service systems
- wildfire
- mandatory findings of significance

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Chapter 2

ENVIRONMENTAL SETTING AND PROJECT DESCRIPTION

Project Overview

The proposed Olive Avenue TSM/ANX project involves the approval of an Annexation Request into the city, a General Plan Amendment, a Zone Change, and a Tentative Subdivision Map to grade and construct building pads, a private street, driveways, and install wet and dry utilities for a 15-lot residential development. The subject property is currently located in unincorporated San Diego County (County), but within the COV's Sphere of Influence, in the western portion of the city that is adjacent to the city of Oceanside (see Figure 1, Jurisdictional Location Map in Attachment A). Specifically, the property is located at 1435 Olive Avenue, on the north side of the street between Winter Road (Oceanside) to the west and Granada Drive (Vista) to the east in unincorporated San Diego County (see Figure 2, Surrounding Land Uses in Attachment A).

The site of the proposed project is 4.94 gross acres in size,[1] and is comprised of two parcels (APN: 162-493-30 and 162-493-31) that contains an existing single-family home, a barn, other auxiliary structures, and related infrastructure. There is also a San Diego Gas & Electric (SDG&E) 30-inch high pressure natural gas pipeline within a 30-foot easement along the entire eastern boundary. The existing home and all related above ground structures (with the exception of a SDG&E monitoring station within the noted easement) would be removed as part of the proposed project.

The property is currently designated as VR 4.3 (Village Residential - 4.3 Dwelling Units/Acre) in the County's General Plan (adopted 2011) and is zoned as A70 – Limited Agriculture in the County's Zoning Ordinance. Concurrently, it has a Rural Residential (RR) land use designation in the COV's *General Plan 2030 Update* (*GP 2030*) (adopted 2012). Connections to necessary utilities such as sewer, water, electricity, etc. are available either on-site or within Olive Avenue.

Olive Avenue, which is south of, and adjacent to, the subject property is designated as a 4-Lane Collector (undivided) in the Vista Circulation Element of *GP 2030* (adopted 2012), and has an 84-foot wide right-of-way (ROW) that is improved with a 64-foot wide curb-to-curb pavement section centered within the ROW. It is presently configured as a two-lane roadway with a continuous left-turn lane, and parking on each side of the road from Ruby Road east past the project site until Cielita Linda Road (striped bike lanes[2] along this section start from Grapevine Road). The road narrows to just a two-lane roadway with no parking or bike lanes from about Cielita Linda Road until just past Maryland Drive, where the road is improved fronting Olive Elementary School, allowing for a continuous left-turn lane, parking and bike lanes east to North Melrose Drive.

1 Per the Tentative Subdivision Map prepared by BHA, Inc. 1/17/19; note that the figure is approximate due to rounding up.
2 Striped bike lanes are designated as Class II Bikeways in the Vista Circulation Element.

Existing Environmental Setting

CITY OF VISTA

Vista is a largely built-out, predominantly low-density residential community located approximately seven miles inland from the Pacific Ocean in northern San Diego County. Clusters of urbanizing higher density areas are scattered throughout the central portion of the city and along arterial roads. Vista is located in the rolling topography of the western foothills of the San Marcos Mountains, with elevations ranging from approximately 200 feet to about 750 feet above mean sea level (AMSL). Pleasant views are found from various points throughout the city with some higher elevations offering captivating vistas of the Pacific Ocean to the west. In addition to the pleasing topography of the mountains and hills, the city is lushly vegetated from the low-level creek beds to the steep slopes of the foothills, which also contributes to the overall beauty of the community. The city also has two major creeks that flow through its boundaries, Buena Vista Creek and Agua Hedionda Creek.

PROJECT SITE

The site consists of two parcels which total 4.94 acres. The project site is located in an unincorporated "island" of San Diego County under the authority of the County of San Diego (County), but within the COV's Sphere of Influence in the western portion of the city that is adjacent to Oceanside.

The southern parcel (approximately 1.39 acres) is undeveloped, contains some debris piles, and is bound on all sides by a chain link fence. However, it does contain an SDG&E monitoring station for the high-pressure gas pipeline discussed below. The northern parcel (about 3.54 acres) supports a large single-family residence. The western portion of the northern parcel includes a two-story home (3,964 square-feet [sq. ft.]) with a tennis court, swimming pool and other associated improvements and landscaping, as shown in Figure 3, Aerial Photo of Subject Property in Attachment A. The eastern portion of this parcel also contains a barn (currently used as a residence) and associated carport. In addition, there are masonry walls located along the eastern side of the northern parcel. According to the *Phase I Environmental Site Assessment* (*Phase I Report*) prepared for the project in 2019 by Christian Wheeler Engineering (CWE), the northern parcel is also currently being used to store miscellaneous trailers, automobiles, boats, and recreational vehicles. In addition, the *Phase I Report* also noted that there were above ground stockpiles of miscellaneous trash and debris scattered across the property (CWE, 2019). An existing 30-foot wide SDG&E easement, which contains an underground 30-inch high pressure natural gas pipeline and above-ground monitoring station is also located along the entire eastern perimeter of the site (see Figure 3, Aerial Photo of Subject Property).

The topography of the site generally slopes from north to south and is characterized by a relatively level pad that contains the existing improvements and moderate slopes (approximately five to 13 percent) that descend from the building pads to the site's southern and northern perimeters. According to the *Report of Preliminary Geotechnical Investigation (Geotech Report)* prepared in 2017 for the project site by Christian Wheeler Engineering (CWE, 2017), on-site elevations range from approximately 371 feet near the southwest corner of the site along Olive Avenue, to approximately 406 feet near the existing tennis court.

The existing impervious coverage of the structures and paved areas on-site represents approximately 11 percent of the total parcel acreage, according to the 2018 *Storm Water Quality Management Plan* (*SWQMP*) prepared by BHA, Inc. (BHA, 2018b). Existing vehicular access to the site from Olive Avenue is provided by a shared private driveway as shown in the aerial photos in Figures 2 and 3, in Attachment A.

According to the *Biological Resources Report* (*Bio Report*) prepared for the project in 2019 by Tierra Data, Inc. (TDI, 2019), existing vegetation was confirmed via a site visit on June 17, 2019, and was found to consist of ornamental trees and patches of non-native weed species in scattered patches. The existing SDG&E natural gas pipeline easement that runs along the eastern edge of the property is dominated by black mustard (*Brassica nigra*) and other non-native species. The southern parcel is covered by non-native grasses (primarily Italian rye grass [*Festuca perennis*] and foxtail barley [*Hordeum murinum*]), and non-native weeds. There was no evidence of sensitive vegetation, or habitats (e.g., riparian, wetland, etc.), or indication of sensitive wildlife on any portion of the project site (TDI, 2019).

In addition, a review of historical aerial photographs (Historic Aerials, 2019; Google Earth, 2019) shows that the site and area has changed significantly over the past 80 years. In photos dated 1938 and 1946, the project site appears to hold just a single residence surrounded by an orchard and open lands. A few new buildings appear in the area by 1953, although it is not until 1980 that any new development is evident on the project parcel. By 1980, homes were present south of the on-site residence, and Granada Drive immediately to the east had been developed. By 1989, most of the structures currently on the site are present and all of the surrounding lands were fully developed. By 1997 the two parcels were essentially in the condition that they are now. Given that the project area and its immediate surroundings have been subjected to significant road, commercial, and residential development, with all areas of the landscape having undergone significant changes, the occurrence of native species is minimal (*TDI,* 2019).

Hydrologically, the site is situated in the Loma Alta Hydrologic Area (HA) (904.10) within the Carlsbad Hydrologic Unit (HU) (904.0). According to the *SWQMP* (BHA, 2018b), a drainage divide runs through the center of the project site and separates the Loma Alta and Buena Vista Creek Hydrologic Areas. The ridge line divides the site into two separate basins, Basin A and Basin B, and the property slopes generally north and southeast from the ridge. Runoff from Basin A flows southeast to Buena Vista Creek and runoff from Basin B flows north to Loma Alta Creek.

In the existing condition, runoff sheet flows in two different directions from the center of the property. Runoff that flows southeast from the center of the property travels towards Olive Avenue until discharging onto the paved road. The existing drainage basin includes run-on from the existing residential developments located west of the property. All drainage from Basin A enters into a tributary Buena Vista Creek where it outfalls into Buena Vista Lagoon and the Pacific Ocean (BHA, 2018b). Runoff from the existing single-family residence flows north away from Olive Avenue, downhill towards the northerly boundary of the subject property. Ultimately, storm runoff flows across the northerly property line and into an existing brow ditch that travels westerly across the adjacent developed land. Drainage from Basin B enters into a tributary of Loma Alta Creek. Eventually it outfalls into the Loma Alta Slough and the Pacific Ocean (BHA, 2018b). Additional information on this topic can be found in Section X, Hydrology and Water Quality in Chapter 3 of this document.

According to the *Geotech Report* (CWE, 2017), the project area is generally underlain by artificial fill, topsoil, subsoil to a depth of approximately seven feet below the surface. Beneath those layers are Santiago Formation deposits. Based on the site investigation by CWE, the site is underlain at shallow depths by very dense, well-consolidated, mudstones and sandstones of the Santiago Formation. The *Geotech Report* (CWE, 2017) also states that the site is underlain by potentially compressible artificial fill, topsoil and subsoil to a maximum depth of about seven feet from existing grade. Deeper compressible soils may exist in areas of the site not investigated. These materials are considered unsuitable, in their present condition, for the support of settlement sensitive improvements. It is recommended that these materials be removed and replaced as compacted fill. Additional information on this topic can be found in VII. Geology and Soils.

Surrounding Land Uses

Immediately surrounding land uses consist primarily of single-family residences to the north and west within Oceanside, and south and east within Vista on lots ranging on average from 0.23 acre to 0.26 acre (see Figure 2, Surrounding Land Uses in Attachment A). The closest existing public school to the site is Grapevine Elementary located approximately 0.30 mile away to the south on Grapevine Road. The closest fire station to the site would be Vista Fire Station No. 1 located at 175 N Melrose Drive, approximately one mile away to the southeast. The closest police station would be the Vista Sheriff's West Office Substation located at 1477 Moon Road across from Grapevine Elementary. Loma Alta Creek and Buena Vista Creek are located approximately 0.25 mile north and 1.0 mile south of the site, respectively. North County Transit District's Sprinter railroad station at the Vista Transit Station is located over 1.5 miles to the east-southeast, and the Oceanside Municipal Airport is located less than five miles to the west-northwest. The project site is located near or within the service areas of the COV sewer service system, and the Vista Irrigation District (VID).

Proposed Project Description

The applicant (Olive Avenue LLC) seeks approval of an Annexation Request into the city, a General Plan Amendment, Zone Change, and Tentative Subdivision Map to subdivide a 4.94-acre site into 15 lots of varying sizes (see Table 2-1, Proposed Lot STABLE 2-1 PROPOSED LOT SIZESizes, below) for a residential development with a private street off of Olive Avenue. No homes are proposed to be built at this time (see Figure 4, Proposed Lot and Grading Plan in Attachment A). Overall, the proposed project would involve mass grading and the construction of building pads, driveways, installation of wet and dry utilities, landscaping, and street and sidewalk improvements along the entire frontage of Olive Avenue. The required discretionary approvals are described below:

- Annexation Request: Per COV Council Policy 300-10 and Chapter 18.06 in the Vista Development Code, this request is required for passage of a COV Council resolution to initiate annexation and apply to the San Diego Local Agency Formation Commission (LAFCO) on behalf of the applicant;
- General Plan Amendment: Per Chapter 18.48 of the Vista Development Code, this application is required in order to change the existing GP 2030 land use designation from RR (Rural Residential) to MLD (Medium Low Density).
- Zoning Change: Per Chapter 18.04 of the Vista Development Code, this application is required to change the existing zoning on the subject property from the County's A70 (Limited Agriculture) to the COV's R-1 (Residential Zone), which allows one single-family dwelling on a minimum 10,000 sq. ft. parcel;
- Tentative Subdivision Map: Per Chapter 17.12 in the Vista Development Code, this map is required for the division and development of the 15 proposed single-family lots on the subject property.

TABLE 2-1 PROPOSED LOT SIZES

LOT NUMBER / USE	GROSS SQ. FT.	NET SQ. FT.
1 - Residential	10,288	10,288
2 - Residential	10,163	10,163
3 - Residential	10,629	10,629
4 - Residential	10,635	10,635
5 - Residential	10,633	10,663
6 - Residential	10,029	10,029

LOT NUMBER / USE	GROSS SQ. FT.	NET SQ. FT.
7 - Residential	10,306	10,306
8 - Residential	12,469	11,800
9 - Residential	10,142	10,142
10 - Residential	11,378	10,042
11 - Residential	11,984	10,960
12 - Residential	12,502	10,666
13 - Residential	10,015	10,015
14 - Residential	11,439	11,439
15 - Residential	11,867	10,031
A - Bioretention basin	9,379	9,379
B – Bioretention basin	7,864	7,864
C - Private street	32,907	32,907

Source: BHA, Inc., 2019

OVERALL SITE PLAN

The project would be developed to be compatible with the proposed land use designation of MLD (up to 5 Dwelling Units (DU)/Acre (AC) in the COV's *GP 2030* (adopted 2012), and the R-1 zoning designation (minimum 10,000 sq. ft. lot size) that the applicant seeks approval for (see XI. Land Use and Planning for additional information). Future development of this subdivision is anticipated to consist of 15 single-family residences with a maximum of two stories (not exceeding a height of 35 feet) that would utilize wood frame construction (or similar methods) on a conventional slab-on-grade foundation. Access to all lots would be through the main entry (Lot C, a private street, as shown in Figure 4, Proposed Lot and Grading Plan in Attachment A) from Olive Avenue.

The project would be developed in two main phases. The first phase generally consists of site development, which would include demolition, grading the site and developing the building pads, installing wet and dry utilities, a private street, driveways, road improvements along Olive Avenue, and landscaping. This phase is estimated to be completed in approximately four to five months. The second phase, in which the 15 homes would be constructed, is subject to market forces and the timing and completion is unknown at this point. However, for analytical purposes it is estimated that construction of the entire project would take approximately 24 months to complete (SRA, *AQ Assessment*, 2019).

SITE DEVELOPMENT

Demolition & Grubbing

The initial stage of site development is anticipated to involve demolition and grubbing the property. This would involve the demolition and removal of the single-family home, tennis court, swimming pool and other associated improvements, as well as existing driveway pavement, structures, debris, and trees and vegetation, etc. from all areas of the site that would be developed. The existing SDG&E easement would be fenced off from the rest of the site to prevent intrusion into this area.[3]

3 Additional protective measures and notifications regarding this area may be required by SDG&E, who will review and approve all construction documents. Additional SDG&E protective measures would be noted in the Conditions of Approval for this project.

Grading

The second stage of development is expected to consist of surface (or mass) grading and developing the building pads. Preliminary calculations of the overall mass grading of the site are estimated at 9,900 cubic yards (CY) of cut, 16,500 CY of fill, and import of 6,600 CY.

The high point on the project site would be 397.5 AMSL (Lot 5 as shown on Figure 4, Proposed Lot and Grading Plan in Attachment A). Currently the high point on the site is elevation 406 AMSL. Graded slopes on the rest of the site are proposed at gradients of 2:1 (horizontal: vertical) or flatter on the site. Grading operations are anticipated to take up to 60 working days to complete according to the *Air Quality Assessment* prepared for the project (SRA, 2019). Temporary and permanent erosion control measures, such as vegetative protection, are required for all cut and fill slopes as detailed in Sections 17.56.280 (F), 17.56.290 (J), and 17.56.330 of the COV's Development Code. See VII. Geology and Soils and X. Hydrology and Water Quality for additional discussion of these issues.

Wet & Dry Utilities

The third stage of site development is anticipated to include the installation of wet and dry utilities, construction of the private street, driveways, half-width street improvements along Olive Avenue, and landscaping. New 8-inch PVC sewer mains would be connected to the existing COV sewer service system's 8-inch sewer main located in Olive Avenue. New sewer laterals would be extended from the new on-site mains and stubbed in each lot. New 1-inch water service lines and meters would be extended onto the site from the existing water main line in Olive Avenue. One new fire hydrant would be installed near the southwestern most driveway (in front of Lot 1) and a second would be located at the northern end of the private street between Lots 5 and 6. The Vista Fire Department (VFD) would verify the final locations of all hydrants during review of the precise grading plans.

According to the *SWQMP* (BHA, 2018b), the proposed drainage plan would not significantly alter the existing on-site flow patterns. The proposed storm drain system would be composed of concrete ditches, storm drainpipes, catch basins, and two biofiltration basins to maintain the pre-developed runoff characteristics.

Bioretention Basins with Hydromodification Capacity (sizing per the County's *Hydromodification Management Plan*, (2011) were selected as the treatment control Best Management Practices (BMPs) because of their effectiveness at treating sediment, trash and fine particles. Hydromodification sizing would effectively mitigate the anticipated increase in the storm water discharge rate due to the increase in impervious surfaces. Two bioretention basins would be installed during the initial construction phase of the development; one each on Lots A and B (as shown in Figure 4, Proposed Lot and Grading Plan). See X. Hydrology and Water Quality for additional discussion and information on drainage improvements and water quality treatment.

Existing overhead electric power poles located along the property adjacent to Olive Avenue would be removed and the power lines placed underground. All electrical service to the new parcels would also be brought underground into the site from the existing service line along the street, as would other dry utilities such as telephone, gas, etc. Improvements are required along the length of Olive Avenue adjacent to the project site. They would generally consist of the installation of streetlights, 6-inch curb and gutter, a 5-foot wide sidewalk, and a minimum pavement section of half the street plus 12 feet of 4-inch Asphalt Concrete over 8-inch Class II Aggregate Base structural pavement section with a Traffic Index of 6.0.

Landscaping

The fourth stage of site development would be the installation of landscaping. The overall landscape concept plan for the proposed project would consist of a variety of native and non-native evergreen and deciduous trees, shrubs, and groundcover that would be planted on the graded slopes of the lots, and along Olive Avenue to provide slope and soil stabilization, shade, color, and visual integration with the surrounding landscape. Planting within the biofiltration basins is also proposed and would assist in the treatment of storm water runoff (see Figure 5, Landscape Concept Plan in Attachment A). Plant selection is based on the Water Efficient Landscaping Ordinance in the COV's Development Code, Chapter 18.56. All of the proposed plant species would be drought tolerant and require low to moderate water use. The Maximum Applied Water Allowance for the proposed project (MAWA) and the Estimated Total Water Use (ETWU) are detailed in Table 2-2 Landscape Water Requirements, below.

TABLE 2-2 LANDSCAPE WATER REQUIREMENTS

ESTIMATED TOTAL WATER USE (ETWU) WORKSHEET

The project's Estimated Total Water Use is calculated using the following formula:

ETWU = (ETo)(0.62)[(PF X HA) / (IE) + SLA)]

ETWU = Maximum Applied Water Allowance in gallons per year
ETo = Evapotranspiration in inches per year
PF = Plant Factor (see requirements in chart)
HA = Hydrozone Area (square feet). Define hydrozones by water use: very low, low, moderate and high
SLA = Special Landscapde Area (square feet). Edible plants, irrigated with recycled water, & turf used for active play
0.62 = Conversion factor to gallons per square foot
IE = Irrigation Efficiency (see requirements in chart)

CITY OF VISTA ESTIMATED TOTAL WATER USE (ETWU) WORKSHEET

	Line						
		1	2	3	4	5	6
Evapotranspiration Rate (Eto)* 51.1 for Vista area	1	51.1					
Conversion Factor - 0.62	2	0.62					
(Line 1 x Line 2)	3	31.682					
Plant Factor (PF)**	4	0.3	0.3	0.6	0.3	0.3	0.6
Hydrozone Area (HA) - in square feet	5	5,361	16,652	7,220	4,159	1,011	633
(Line 4 x Line 5)	6	1,608	4,996	4,332	1,248	303	380
Irrigation Efficiency (IE)***	7	0.75	0.70	0.75	0.81	0.75	0.81
(Line 6 / Line 7)	8	2,144	7,137	5,776	1,540	404	469
TOTAL all Line 8's	9	17,471					
Line 3 x Line 9 Estimated Total Water Use – ETWU (gallons per year) Total shall not exceed MAWA below	10	**553,505**					

*ETo = Evapotranspiration rate = 51.1 for Vista, CA

Average calculated from values in State Model Water Efficiency Landscape Ordinance (MWELO) - Appendix A

*** Plant Factor (Water Use) - from WUCOLS***

Select based on type of plants in hydrozone:
0.1 = VLW - Very Low Water Use Plants
0.3 = LW - Low Water Use Plants
0.6 = MW - Moderate Water Use Plants
1.0 = HW - High Water Use Plants

*** IE - Irrigation Efficiency
Spray = 0.55
MP Rotators = 0.75
Rotor = 0.70
Bubbler = 0.75
Drip & Micro-spray = 0.81

MAXIMUM APPLIED WATER APPLICATION (MAWA) calculation

31.682 [(.55 x 35,036) / (1-ETAF) x _____)] =
Total Landscape Area Total SLA

MAWA
610,506

ETAF = Evapotranspiration adjustment factor (use .55 residential, .45 non-residential

Source: Howard Associates, 2019

As shown in Table 2-2 Landscape Water Requirements, the total ETWU for the proposed landscape plan would be 553,505 gallons per year, some 57,001 gallons per year less than the MAWA.

ADDITIONAL APPROVALS

Besides review under CEQA, the applicant and/or contractor of the proposed project would be required to obtain the following additional approvals and/or permits from the COV: Right-of-Way Permit, Grading Permit, Landscape Construction Plan, and (eventually) Building Permit(s). These approvals require meeting certain Conditions of Approval prior to obtaining the required permits. In addition, before the Final (Subdivision) Map is recorded, all Conditions of Approval (which include the mitigation measures in this document) must be satisfactorily completed. Other public agency approvals are cited on page 3-1.

TRIBAL CONSULTATION

California Native American tribes traditionally and culturally affiliated with the project area were notified by the COV of the project, and requested consultation pursuant to CEQA Statute § 21080.3.1. COV staff conducted consultation with these Tribes per the requirements of CEQA Statute § 21080.3.2. The mitigation measures in Section V, Cultural Resources were a result of the consultation process.

Chapter 3

INITIAL STUDY ENVIRONMENTAL CHECKLIST

Project Information

PROJECT TITLE:	Olive Avenue 15-Lot Tentative Subdivision Map & Annexation
LEAD AGENCY NAME AND ADDRESS:	City of Vista Community Development Department Planning Division 200 Civic Center Drive Vista, California 92084
CONTACT PERSON:	Michael Ressler, Principal Planner (760) 643-5388 mressler@cityofvista.com
PROJECT LOCATION:	1435 Olive Avenue, on the north side of the street between Winter Road (Oceanside) to the west and Granada Drive (Vista) to the east
PROJECT APPLICANT:	Steve Ortiz Olive Avenue, LLC 235 West Market Street San Diego, CA. 92101 (214) 632-6429
GENERAL PLAN DESIGNATION:	Existing - VR 4.3 (County) RR (COV), Proposed - MLD (COV)
ZONING DESIGNATION:	Existing - A-70 (County), Proposed - R-1 (COV)
DESCRIPTION OF PROJECT:	See Chapter 2, Proposed Project Description
SURROUNDING LAND USES AND SETTING:	See Chapter 2, Existing Environmental Setting
OTHER PUBLIC AGENCY APPROVALS:	San Diego LAFCO (as a Responsible Agency) reviews and authorizes the Change of Organization or Reorganization Application for the Applicant's annexation request; Notice of Intent to the State Water Resources Control Board (SWRCB) and preparation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the most recent National Pollutant Discharge Elimination System (NPDES) General Construction Activities Permit.

Environmental Factors Potentially Affected

Based upon the initial evaluation presented in the following IS, it is concluded that the proposed project would not result in significant adverse environmental impacts.

ENVIRONMENTAL DETERMINATION

On the basis of the initial evaluation of the attached Initial Study:

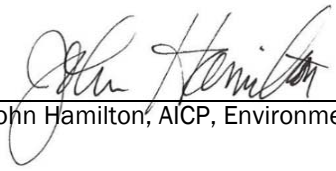
☐ I find the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the project could have a significant effect on the environment there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



John Hamilton, AICP, Environmental Planner — 11/08/2019 Date

The signature below signifies that the applicant has read and accepts the mitigation measures detailed in the final Mitigated Negative Declaration.

Applicant or Owner — Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on- site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analyses Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to less than significance

IMPACT TERMINOLOGY

The following terminology is used to describe the level of significance of impacts:

- A finding of *no impact* is appropriate if the analysis concludes that the project would not affect the particular topic area in any way.
- An impact is considered *less than significant* if the analysis concludes that it would not cause substantial adverse change to the environment and requires no mitigation.
- An impact is considered *less than significant with mitigation incorporated* if the analysis concludes that it would not cause substantial adverse change to the environment with the inclusion of environmental commitments that have been agreed to by the applicant.
- An impact is considered *potentially significant* if the analysis concludes that it could have a substantial adverse effect on the environment.

I. Aesthetics *Except as provided in Public Resources Code Section 21099, would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. 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 a 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?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

DISCUSSION

a - b. NO IMPACT. Visual resources can be valued both objectively and subjectively based on their uniqueness, prominence, quality, relationship to community identity, and economic contributions, such as to land values and tourism. Visual resources are important from an aesthetic perspective when, based on the characteristics listed above, they are identified as containing significant scenic value. Within this understanding, a scenic vista can be defined as the public view of an area that is visually or aesthetically unique, such as a valley or a mountain range. A review of the San Luis Rey and San Marcos USGS maps of the project area, as well as the review of general plans of Vista, County of San Diego, and Oceanside did not identify a scenic vista that could be viewed within the project area (i.e., adjacent to the project site). As a result, the construction of the proposed project would not result in significant impacts on a scenic vista.

The proposed project would not substantially damage scenic resources or historic buildings within a state scenic highway. The existing 4.94-acre project site (see Figure 1, Jurisdictional Location Map in Attachment A) is located in unincorporated San Diego County immediately adjacent to Olive Avenue, which is not identified as a state scenic highway. Consequently, project implementation would not substantially damage scenic resources, and significant impacts would not occur.

c. LESS THAN SIGNIFICANT IMPACT. The proposed project would not substantially degrade the existing visual character or quality of the project site or surroundings. The visual character of the existing site is defined by the existing structures on-site and the vegetated vacant field that fronts Olive Avenue. The visual character of the immediately surrounding land is largely defined by single-family residences to the north and west in Oceanside, and south and east in Vista, on lots averaging approximately one quarter of an acre.

As noted in the Proposed Project Description section in Chapter 2 of this document, the project involves subdividing the two-parcel property into fifteen lots at least 10,000 sq. ft. in size with driveways off of a new private street from Olive Avenue. As depicted in Figure 5, Landscape Concept Plan in Attachment A, the overall landscape plan for the site would consist of a variety of native and non-native evergreen and deciduous trees, shrubs, and groundcover that would be planted on the graded slopes of the lots, along the street, and within the bioretention basins, which would help provide visual integration with the surrounding landscape. Although the proposed project would change the existing visual character of the site through the creation of the fifteen residential lots and the eventual building of fifteen new homes, the change would be in keeping with the surrounding community character of neighboring residential development, and in many ways could actually improve and upgrade the visual quality of the existing property. Accordingly, project implementation would result in less than significant impacts.

d. NO IMPACT. The proposed project would not create a substantial source of light or glare. Construction of the project would include the installation of one new streetlight placed on the project frontage along Olive Avenue. Conditions of Approval will require that the new light would be specified to match COV standards for streetlights in the Development Code (e.g., approximate minimum height of 12 feet, shielded and directed away from residential property boundaries, etc.). As a result, the installation of the new streetlight would not create a significant, substantial source of light or glare within the project area. In addition, architectural plans for the fifteen future homes would be reviewed by the COV's Building Department and Planning Division prior to the owner obtaining building permits, including whether the exterior building materials or exterior lights would produce substantial glare. Conformance with the Development Code, permit plan checks, and reviews by COV Staff would ensure that substantial lighting and glare impacts from future building and site development would not be created. Therefore, significant impacts would not occur with project implementation.

II. Agriculture and Forest Resources *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. 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 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

DISCUSSION

a - e. NO IMPACT.

POTENTIAL AGRICULTURE AND FOREST RESOURCE IMPACTS

The potential impacts from loss of farmland are discussed below under two conversion scenarios: the first would be under the definition of prime agricultural lands as defined by the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 for annexation considerations under LAFCO; the second would be under maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation.

Potential Farmland Conversion Impacts under LAFCO

As noted in the Project Overview section in Chapter 2 of this document, the 4.94-acre site of the proposed project is located in unincorporated San Diego County, but within the COV's Sphere of Influence, in the western portion of the city that is adjacent to the city of Oceanside. The existing property is comprised of a residence, auxiliary buildings, a pool and tennis court and landscaping. It is currently designated as Semi-Rural Residential ("SR-1") in the County's General Plan (adopted 2011) and is zoned as A70 – Limited Agriculture in the County's Zoning Ordinance. However, it is not designated for agricultural preservation by the County's Land Use Element. In general, the A70 zone does not serve to protect and preserve agricultural land uses, rather it (like the A72 zone) regulates land use, such as the number of residences, outbuildings or animals allowed on a property.[4]

Immediately surrounding land uses consist primarily of single-family residences to the north and west within Oceanside, and south and east in Vista on lots ranging on average from 0.23 acre to 0.26 acre (see Figure 2, Surrounding Land Uses in Attachment A).

The applicant seeks approval of an Annexation Request into the city, which is required for passage of a COV Council resolution to initiate annexation and apply to the San Diego LAFCO on behalf of the applicant. LAFCOs are required to consider how spheres of influence or changes of local governmental organization could affect open space and prime agricultural lands, based on specified criteria. Proposals for annexation must be further reviewed for their effect on maintaining the physical and economic integrity of agricultural lands (CA Govt. Code Section 56668(e)). The key element for the LAFCO analysis is to determine whether the proposal territory is considered prime agricultural lands, as defined by the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000.

As defined in CA Government Code Section 56064, Prime agricultural land is:

> *…an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:*
>
> *a) Land that qualifies, if irrigated, for rating as class I or class II in the USDA Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provided that irrigation is feasible.*
> *b) Land that qualifies for rating 80 through 100 Storie Index Rating.*
> *c) Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Range and Pasture Handbook, Revision 1, December 2003.*
> *d) Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre.*
> *e) Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.*

4 Section 2.2 Agricultural Resources, San Diego County General Plan Update, Final Program EIR, August 2011.

There are three soil classifications from the NRCS on the proposed site, which are listed below in Table AGRI-1. As shown in the table, none of the soil groups meets any of the above noted qualifications for "prime agricultural soil". As a result, project development would not result in significant impacts to prime agricultural land as defined in CA Government Code Section 56064.

TABLE AGRI-1 NRCS QUALIFIED AGRICULTURAL LAND

Map Unit Symbol	Map Unit Name	Irrigated Capability Class*	CA Revised Storie Index**	Acres in AOI	Percent of AOI
DaE2	Diablo clay, 15 to 30 percent slopes, eroded, warm MAAT, MLRA 20	Class 4 - Very Severe	Grade 4 - Poor	2.7	59.2%
LeC2	Las Flores loamy fine sand, 5 to 9 percent slopes, eroded	Class 3 - Severe	Grade 2 - Good	0.5	10.2%
DaD	Diablo clay, 9 to 15 percent slopes, warm MAAT, MLRA 20	Class 4 – Very Severe	Grade 4 - Poor	1.7	30.6%
Total for Area of Interest (AOI)				**4.9**	**100.0%**

Source: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

*Notes: * Class 4 soils in this category are considered to have very severe limitations that reduce the choice of plants or that require very careful management, or both; Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both. ** Grade 4 soils in this category are considered to have a "Poor" rating (21–40), and Grade 2 soils are considered to have a "Good" rating (61–80); however, neither soil group is considered "Prime" agricultural land, which would have an "Excellent" rating (81-100).*

Potential Farmland Conversion Impacts under CA Department of Conservation

Based on a review of the San Diego County Important Farmland Map (Sheet 1 of 2) prepared under the Farmland Mapping and Monitoring Program by the California Department of Conservation (2016), the property is designated as Urban and Built-Up Land. Therefore, development of the proposed project would not result in significant impacts in converting Prime Farmland or Farmland of Statewide Importance to a non-agricultural use.

POTENTIAL IMPACTS TO EXISTING ZONING FOR AGRICULTURAL USE OR WILLIAMSON ACT CONTRACTS

The potential impacts of project implementation conflicting with existing agriculturally zoned land or with land under a Williamson Act Contract is discussed below.

Potential Impacts with Property under Existing Zoning for Agricultural Use

As stated in the discussion above, the site of the proposed project is located in unincorporated San Diego County, but within the COV's Sphere of Influence. It is currently zoned as A70 - Limited Agriculture in the County's Zoning Ordinance. As previously stated, in general the A70 zone does not serve to protect and preserve agricultural land uses, rather it (like the A72 zone) regulates land use, such as the number of residences, outbuildings or animals allowed on a property.[5] The A70 zone does permit agricultural crop production and also allows one single-family residence on a one-acre minimum parcel.

As described in Chapter 2 of this document, the applicant for the proposed project seeks a zoning change designation under the COV's Zoning Ordinance to an R-1 (Single-family Residential) designation, which would allow a single-family home on a minimum 10,000 sq. ft. parcel. As shown in Figure 2, Surrounding Land Uses in Attachment A, while two other existing parcels are zoned A70, they are occupied only by residences with no agricultural operation present or visible. As a result, the proposed project would not result in significant impacts to agriculturally zoned property.

5 Ibid.

Potential Impacts with Property under Williamson Act Contracts

The site of the proposed project is not under a Williamson Act Contract. Therefore, construction of the project would not create conflicts with property under a Williamson Act Contract, resulting in no significant impacts.

POTENTIAL CONFLICTS WITH EXISTING ZONING FOR, OR CAUSE REZONING OF, FOREST LAND

The site of the proposed project is currently zoned as A70 - Limited Agriculture in the County's Zoning Ordinance. As can be seen in Figure 2, Surrounding Land Uses in Attachment A, none of the surrounding land is zoned as "forest land" and there are no existing forest resources on-site that would be lost as a result of the project. As a result, construction of the project would not result in any significant conflicts with any land that is currently forested or zoned as forest land.

POTENTIAL LOSS OF FOREST LAND OR CONVERSION OF FOREST LAND TO NON-FOREST USE

The project site does not contain any land that could be considered or designated as "forest land", and none of the surrounding land exists, or could be designated, as "forest land". Therefore, construction of the project would not result in significant impacts to the loss or conversion of any forest land.

OTHER CHANGES WHICH COULD RESULT IN CONVERSION OF FARMLAND OR FOREST LAND TO ANY OTHER USE

As noted in the discussion above, construction of the proposed development would not involve or affect any other changes in the existing environment of the subject property or surrounding land that could result in the conversion of Farmland to non-agricultural uses or forest land to non-forest uses because neither farmland nor forest land exists on the project site of the project area. As a result, significant impacts would not occur.

III. Air Quality *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
g. 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?	☐	☐	☒	☐
h. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
i. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

The discussion below is based on the findings contained within the *Air Quality Assessment for the Olive TSM/Annex Project (AQ Report) (Scientific Resources Associated [SRA],* 2019a) prepared for the proposed project. This report is on file and available for review with the COV's Planning Division.

DISCUSSION

a. LESS THAN SIGNIFICANT IMPACT. Projects that are consistent with existing General Plan documents, which are used to develop air emissions budgets for the purpose of air quality planning and attainment demonstrations, would be consistent with the SDAB's air quality plans, including the Regional Air Quality Strategy (RAQS) and the State Implementation Plan (SIP). Both of these air quality plans contain strategies for the region to attain and maintain the ambient air quality standards. Provided the project complies with the applicable Rules and Regulations adopted by the San Diego Air Pollution Control District (SDAPCD) through their air quality planning process, the project would not conflict with or obstruct implementation of the RAQS or SIP.

The proposed project would annex the project site into the city, subdivide the land, and ultimately result in the construction of 15 single-family homes. To accomplish this the project would require approval by the COV of a General Plan Amendment and a Zone Change. The existing County general plan and zoning land use designations are VR-4.3 (Village Residential – 4.3 dwelling units [DU]/per acre [AC]) and A70 (Limited Agriculture), respectively. The proposed density is estimated to be 3.3 DU/AC. This is less than the density currently allowed in the County General Plan as VR-4.3. The proposed project would therefore not propose density that is greater than accounted for within the County's General Plan.

The proposed project would be in compliance with applicable Rules and Regulations adopted by the SDAPCD and would therefore not conflict with or obstruct implementation of the RAQS or SIP. Therefore, this impact would be less than significant.

b. LESS THAN SIGNIFICANT IMPACT. Air quality impacts can result from the construction and operation of the project. Construction emissions are finite and include fugitive dust, equipment exhaust, and indirect mobile source emissions associated with construction workers commuting, material hauling, and deliveries. Operational impacts are primarily due to emissions from mobile sources associated with the vehicular travel along roadways and area sources, such as natural gas use for space and water heating.

Air emissions were calculated using the California Emissions Estimator Model (CalEEMod) (SCAQMD 2016). CalEEMod is a tool used to estimate air emissions resulting from land development projects. The model generates emissions from two basics sources: construction and operational sources. SDAPCD significance thresholds for air quality impacts are shown in Table AQ-1 below.

TABLE AQ-1 SCREENING-LEVEL CRITERIA FOR AIR QUALITY IMPACTS

Pollutant	Total Emissions		
Construction Emissions			
	Lb. Per Day		
Respirable Particulate Matter (PM_{10})	100		
Fine Particulate Matter ($PM_{2.5}$)[1]	55		
Oxides of Nitrogen (NOx)	250		
Oxides of Sulfur (SOx)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOC)[2]	137		
Operational Emissions			
	Lb. Per Hour	**Lb. Per Day**	**Tons Per Year**
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter ($PM_{2.5}$)[3]	---	55	10
Oxides of Nitrogen (NOx)	25	250	40
Oxides of Sulfur (SOx)	25		
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOC)[4]	---	137	15

*Source: SRA, 2019a * SDAPCD*

1 $PM_{2.5}$ is not currently regulated under SDAPCD Rule 20.2. $PM_{2.5}$ thresholds are based on SCAQMD significance thresholds of 44 lbs./day for construction and operation and 10 tons/year for operation.
2 VOC's are not regulated under SDAPCD Rule 20.2. VOC thresholds are based on City of San Diego's Significance Determination Thresholds.
3 $PM_{2.5}$ is not currently regulated under SDAPCD Rule 20.2. $PM_{2.5}$ thresholds are based on SCAQMD significance thresholds of 44 lbs./day for construction and operation and 10 tons/year for operation.
4 VOC's are not regulated under SDAPCD Rule 20.2. VOC thresholds are based on City of San Diego's Significance Determination Thresholds.

CONSTRUCTION-RELATED EMISSIONS

Construction-related activities are temporary, finite sources of air emissions. Typical sources of construction-related air emissions include:

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

Construction-related pollutants result from dust raised blasting, earthwork including grading, emissions from construction vehicles, and chemicals used during construction. Fugitive dust emissions vary greatly during construction and are dependent on the amount and type of activity, silt content of the soil, and the weather. Vehicles moving over unpaved surfaces, excavation, earth movement, grading, and wind erosion from exposed surfaces are all sources of fugitive dust.

Heavy-duty construction equipment is usually diesel powered. In general, emissions from diesel-powered equipment contain more nitrogen oxides, sulfur oxides, and particulate matter than gasoline-powered engines. However, diesel-powered engines generally produce less CO and less ROG than do gasoline-powered engines. Standard construction equipment includes dozers, rollers, scrapers, dewatering pumps, backhoes, loaders, paving equipment, delivery/haul trucks, jacking equipment, welding machines, and so on.

Construction would commence with demolition of the existing residence and related structures, and removal of the vehicles, boats, and trailers and debris from the site. Grading would require approximately 60 days. Construction of the proposed project was estimated to require a total of 24 months to complete. For the purpose of this analysis, it was assumed that project construction would commence in October 2019. Should construction occur later, emissions would likely decrease due to increasingly stringent requirements for on-road vehicles and off-road equipment; therefore, this analysis is conservative. Construction phases would consist of demolition of the existing structures; grading; building construction; paving; and architectural coatings application. During grading, there would be an estimated 9,200 cubic yards of cut and 15,900 cubic yards of fill, with 6,700 cubic yards of import to balance the site. Emissions from construction of the proposed project were estimated through the use of the CalEEMod (SCAQMD 2016). It was assumed that standard fugitive dust control measures would be implemented, including watering of active sites three times daily.

For the purpose of estimating emissions from the application of architectural coatings, it was assumed that water-based coatings that would be compliant with SDAPCD Rule 67.0.1 VOC limitations would be used for both exterior and interior surfaces. Rule 67.0.1 requires flat architectural coatings to meet a VOC limit of 50 grams/liter, and non-flat coatings to meet a VOC limit of 100 grams/liter. For the purpose of this analysis, this assumption was included in the CalEEMod by assuming that the architectural coating emissions would meet a VOC limit of 50 grams/liter for interior coatings and 100 grams/liter for exterior coatings.

Table AQ-2 provides a summary of the emission estimates for construction of the proposed project, assuming standard measures are implemented to reduce emissions, as calculated with the CalEEMod. Refer to the *AQ Report* for detailed model output files. As shown in Table AQ-2, emissions associated with construction are below the significance thresholds for all construction phases and pollutants. Construction of the proposed project would be short-term and temporary. Thus, the emissions associated with construction would be less than significant.

TABLE AQ-2 ESTIMATED CONSTRUCTION EMISSIONS

Emission Source	ROG[9]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
lbs./day						
Demolition						
Fugitive Dust	-	-	-	-	0.05	0.01
Offroad Diesel	3.51	35.78	22.06	0.04	1.79	1.67
Haul Trucks	0.006	0.18	0.04	0.0005	0.01	0.003
Worker Travel	0.06	0.04	0.46	0.001	0.12	0.03
TOTAL	**3.58**	**36.00**	**22.56**	**0.04**	**1.97**	**1.69**
Significance Criteria	137	250	550	250	100	100
Significant?	No	No	No	No	No	No
Grading						
Fugitive Dust	-	-	-	-	2.40	1.30
Offroad Diesel	2.58	28.35	16.29	0.03	1.39	1.29
Haul Trucks	0.16	5.59	1.21	0.01	0.60	0.17
Worker Travel	0.06	0.04	0.46	0.001	0.12	0.03
TOTAL	**2.80**	**33.98**	**17.96**	**0.04**	**4.51**	**2.79**
Significance Criteria	137	250	550	250	100	100
Significant?	No	No	No	No	No	No
Paving						
Offroad Diesel	1.09	10.84	12.26	0.02	0.58	0.53
Worker Travel	0.07	0.04	0.53	0.002	0.17	0.04
TOTAL	**1.16**	**10.88**	**12.79**	**0.02**	**0.75**	**0.57**
Significance Criteria	137	250	550	250	100	100
Significant?	No	No	No	No	No	No
Building Construction						
Offroad Diesel	2.12	19.19	16.85	0.03	1.12	1.05
Vendor Trips	0.007	0.23	0.06	0.0006	0.01	0.005
Worker Trips	0.02	0.01	0.14	0.0004	0.04	0.01
TOTAL	**2.14**	**19.43**	**17.05**	**0.03**	**1.17**	**1.07**
Significance Criteria	137	250	550	250	100	100
Significant?	No	No	No	No	No	No
Architectural Coatings Application						
Architectural Coatings Offgassing	3.20	-	-	-	-	-

Emission Source	ROG[9]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
lbs./day						
Offroad Diesel	0.22	1.53	1.82	0.003	0.09	0.09
Worker Trips	0.003	0.002	0.03	0.0001	0.01	0.002
TOTAL	**3.42**	**1.53**	**1.85**	**0.003**	**0.10**	**0.09**
Significance Criteria	137	250	550	250	100	100
Significant?	No	No	No	No	No	No
Maximum Daily Emissions	**6.51**	**36.01**	**31.39**	**0.05**	**4.53**	**2.79**
Significance Criteria	137	250	550	250	100	100
Significant?	No	No	No	No	No	No

*Source: SRA, 2019a * SDAPCD*

1 The threshold for VOCs is based on the Environmental Protection Agency General Conformity Rule, which equates VOC and NOX emissions under the clean air act and applies the same limitation on VOC and NOX emissions in ozone non-attainment areas (Federal Register 2010).
2 $PM_{2.5}$ threshold is equated to PM_{10} as the SDAPCD does not set a limit on $PM_{2.5}$ and approximately 92 percent of PM_{10} exhaust is $PM_{2.5}$ and 61 percent of mechanical PM_{10} is $PM_{2.5}$ (SCAQMD 2006).

OPERATION-RELATED EMISSIONS

Long-term emissions of air pollutants occur from operational sources. The main operational impacts associated with the proposed project would be related to traffic. Minor impacts would be associated with energy use and landscaping.

To estimate emissions associated with project-generated traffic, the CalEEMod was used. Default trip generation rates for single-family developments were used in the CalEEMod. The CalEEMod contains emission factors from the EMFAC2014 model, which is the latest version of the California Air Resources Board emission factor model for on-road traffic. Project-related traffic was assumed to be comprised of a mixture of vehicles in accordance with the CalEEMod defaults for vehicle mix. This assumption includes light duty autos and light duty trucks (i.e., small trucks, SUVs, and vans) as well as medium- and heavy-duty vehicles that may be traveling to make deliveries. Emissions associated with area sources (energy use and landscaping activities) were also estimated using the default assumptions in the CalEEMod.

For conservative purposes, emission factors representing the vehicle mix for 2021 were used to estimate emissions as 2021 was assumed to be the first year of full operation; based on the results of the EMFAC2014 model for subsequent years, emissions would decrease on an annual basis from 2021 onward due to phase-out of higher polluting vehicles and implementation of more stringent emission standards that are taken into account in the model. Emissions associated with area sources (energy use and landscaping activities) were also estimated using the default assumptions in the CalEEMod.

As shown in Table AQ-3, operational emissions from the proposed project would be below the significance criteria for all pollutants. Thus, the emissions associated with operations would be less than significant.

TABLE AQ-3 ESTIMATED OPERATIONAL EMISSIONS

Emission Source	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer, lbs./day						
Area Sources	0.70	0.26	1.35	0.002	0.03	0.03

Emission Source	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Energy Use	0.01	0.09	0.04	0.0006	0.007	0.007
Vehicular Emissions	0.27	1.09	3.14	0.01	0.92	0.25
TOTAL	**0.98**	**1.44**	**4.52**	**0.01**	**0.95**	**0.29**
Significance Criteria	137	250	550	250	100	100
Significant?	No	No	No	No	No	No
Winter, lbs./day						
Area Sources	0.70	0.26	1.35	0.002	0.03	0.03
Energy Use	0.01	0.09	0.04	0.0006	0.007	0.007
Vehicular Emissions	0.26	1.12	3.08	0.01	0.92	0.25
TOTAL	**0.97**	**1.47**	**4.47**	**0.01**	**0.95**	**0.29**
Significance Criteria	137	250	550	250	100	100
Significant?	No	No	No	No	No	No
Annual, tons/year						
Area Sources	0.12	0.005	0.11	0.00003	0.0009	0.0009
Energy Use	0.002	0.02	0.007	0.0001	0.001	0.001
Vehicular Emissions	0.05	0.20	0.56	0.002	0.16	0.04
TOTAL	**0.17**	**0.23**	**0.68**	**0.002**	**0.17**	**0.05**
Significance Criteria	15	40	100	40	15	15
Significant?	No	No	No	No	No	No

Source: SRA, 2019a

As indicated in Table AQ-2 and AQ-3, construction and operational emissions from the proposed project would be below significance thresholds. Because the proposed project's emissions are less than significance thresholds, the emissions during construction and operations would not be expected to result in a cumulatively considerable impact to air quality. Therefore, the proposed project would have a less-than-significant impact.

c. LESS THAN SIGNIFICANT IMPACT. Projects involving traffic impacts may result in the formation of locally high concentrations of CO, known as CO "hot spots." CO "hot spots" have the possibility of forming at intersections with a level of service (LOS) of E or F (SRA, 2019a). Due to the small size of the proposed project, its location in an area of the city that is zoned for that type of land uses, and existing LOS of nearby intersections, the proposed project would not generate substantial traffic that would results in a degradation of LOS at nearby intersections. It is therefore anticipated to no CO "hot spots" would result from project-related traffic.

Construction and operations would result in minor emissions of TACs from construction equipment and motor vehicles. The proposed project is a residential development and is not a major source of TACs. The amounts of TACs that would be generated from construction equipment and motor vehicles is negligible. Therefore, impacts to sensitive receptors would be less than significant.

d. LESS THAN SIGNIFICANT IMPACT. During construction, diesel equipment operating at the site may generate some odors; however, due to the distance of sensitive receptors to the project site and the temporary and intermittent nature of construction, odors associated with proposed project construction be less than significant.

According to the SCAQMD CEQA Air Quality Handbook (SCAQMD 1999), land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations. The proposed project is a residential development and does not include any of the operations cited in the SCAQMD's handbook. Therefore, odor impacts would be less than significant.

IV. Biological Resources *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☐	☒	☐	☐
b. 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?	☐	☐	☐	☒
c. 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?	☐	☐	☐	☒
d. 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?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. 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 discussion below is based on the findings contained within the *Biological Resources Assessment for the Olive TSM/Annex Project* (*Bio Report*) (Tierra Data, Inc. [TDI], 2019) prepared for the proposed project. This report is on file and available for review with the COV's Planning Division.

DISCUSSION

a. LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. As stated in the Existing Environmental Setting section in Chapter 2 of this document, the 4.94-acre project site has been in residential use since approximately the 1980s. The northern parcel (APN-162-493-30) is mostly comprised of a residential home, lawns, a tennis/basketball court, storage sheds, and large graded parking areas.

Ornamental trees and patches of non-native weed species occur in scattered patches. A natural gas line right-of-way runs along the eastern edge of the property which is dominated by black mustard (*Brassica nigra*) and other weed species. The southern parcel (APN-162-493-31) is covered by non-native grasses (primarily Italian rye grass [*Festuca perennis*) and foxtail barley [*Hordeum murinum*]), and non-native weeds. The parcel is regularly mowed for fire control.

Most of the project site is characterized as Disturbed Habitat (DH; 11300), as described by Holland (1986) and Oberbauer et al. (2008), including the entire southern parcel (TDI, 2019). Three areas used for parking and storing a variety of recreational vehicles, boats and other items are also classified as DH as they support mostly compacted bare ground and a variety of non-native weed species. Less than half an acre of the site supports stands of non-native shrubs and trees such as acacias (Acacia sp.). Approximately 1.8 acres are developed or landscaped with the home, pool, ball court, landscaping, and outbuildings.

Review of historical aerial images (Historic Aerials, 2019; Google Earth, 2019) shows that the site and area has changed significantly over the past 80 years. In photos dated 1938 and 1946, the project site appears to hold just a single residence surrounded by an orchard and open lands. A few new buildings appear in the area by 1953, although it is not until 1980 that any new development is evident on the project parcel. By 1980, homes were present south of the on-site residence, and Granada Drive immediately to the east had been developed. By 1989, most of the structures currently on the site are present and all of the surrounding lands were fully developed. By 1997 the two parcels were essentially in the condition that they are now. Given that the project area and its immediate surroundings have been subjected to significant road, commercial, and residential development, with all areas of the landscape having undergone significant changes, the occurrence of native species is minimal.

Based on the above information, candidate, sensitive, or special status plant or wildlife species do not exist, and are not expected to occur, on the site given the lack of suitable soils, habitat and the highly disturbed nature of the property. As a result, no direct significant impacts are anticipated. However, potentially significant direct temporary impacts are anticipated, as discussed below.

DIRECT TEMPORARY IMPACTS

Due to the presence of mature trees on-site, as well as off-site along portions of the northern, southern and western perimeter of the project site, implementation of the proposed project could result in direct temporary impacts to active bird nests if site development activities occur during the bird breeding season (generally from March 1 through August 31, but as early as January 1 for some raptors). Any construction activities (including, but not limited to, staging and disturbances to native and non-native vegetation, structures, and substrates) that occur during the nesting/breeding season of birds such as raptors (e.g., Cooper's hawk and red-tailed hawk), and/or birds protected by the federal Migratory Bird Treaty Act of 1918 (50 C.F.R. Section 10.13) and the California Fish and Game Code (Sections 3503, 3503.5, and 3513), could result in a take of birds or their eggs, which would result in a potentially significant impact. A "take" means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (Fish and Game Code Section 86), and includes take of eggs and/or young resulting from disturbances which cause abandonment of active nests. Therefore, the preferred option in undertaking the removal of the trees would be performed outside of the avian breeding season, as noted above and verified by a Qualified Biologist. However, if avoidance of the avian breeding season is not feasible, then Mitigation Measure BR-1 would be undertaken, which would reduce potentially significant temporary impacts to less than significant levels.

MITIGATION MEASURE

BR-1 All vegetation removal or grading will be performed prior to or after the bird breeding season, January 1 through September 15 (i.e., only between September 16 and December 31). If clearing or grading cannot be avoided during the bird-breeding season, a one-time pre-construction nest survey conducted by a Qualified Biologist (i.e., with experience in conducting breeding bird surveys) shall be conducted within the proposed impact area 72 hours prior to construction. This survey is necessary to assure avoidance of impacts to nesting raptors (e.g., Cooper's hawk and red-tailed hawk) and/or birds protected by the federal Migratory Bird Treaty Act. If nesting activities within 300 feet of the proposed work area (within 500 feet for raptors) are not detected, construction activities may proceed. If any active nests are detected, the area shall be flagged and mapped on the construction plans with buffers as determined by the project biologist and avoided until the nesting cycle is complete. Project personnel shall be instructed about the protocol. The results of the survey would be provided in a summary report to the Director of Community Development, and to CDFW (if required). By avoiding clearing during the bird breeding season and/or impacts to nesting birds and raptors, the proposed project would be in compliance with the MBTA and pertinent sections of the CFG Code.

b - f. NO IMPACT. The project site does not support any riparian habitat or other natural communities, and does not support any wetlands identified by federal, state, regional, or local agencies, plans, policies, or regulations. The project site also is not located within any known or reported local or regional wildlife corridors, and it does not contain any biological resources that are protected by city or county policies, or approved local, regional, or state habitat conservation plans (such as the North County MHCP). As a result, significant impacts on these resources would not occur with development of the project.

To ensure all indirect effects are avoided or remain below a level of significance, the MHCP contains a list of Standard BMPs that should be incorporated into proposed projects. The list of applicable BMPs, which will be incorporated into the proposed project as conditions of approval, are listed shown below. See additional information in the *Bio Report* (TDI, 2019).

1. A water pollution and erosion control plan shall be developed that describes sediment and hazardous materials control, dewatering or diversion structures, fueling and equipment management practices, and other factors deemed necessary by reviewing agencies. Erosion control measures shall be monitored on a regularly scheduled basis, particularly during times of heavy rainfall. Corrective measures will be implemented in the event erosion control strategies are inadequate. Sediment/erosion control measures will be continued at the project site until such time as the revegetation efforts are successful at soil stabilization.
2. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. All employees shall be instructed that their activities are restricted to the construction areas.
3. If dead or injured listed species are located, initial notification must be made within three working days, in writing, to the USFWS's Division of Law Enforcement in Torrance, California and by telephone and in writing to the applicable jurisdiction, Carlsbad Field Office of the USFWS, and CDFW.
4. The COV shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs. The USFWS and CDFW may accompany COV representatives on this inspection.
5. Projects adding new utility lines or towers or modifying existing utility lines or towers will implement designs that preclude or minimize harm to wildlife due to collisions or electrocution. Information on such designs can be found at www.migratorybirds.fws.gov/issues/towers.
6. Any project landscaping shall not include species identified as an invasive non-native plant species as identified by the California Invasive Plant Council at http://www.cal-ipc.org/paf/.

Application of the applicable MHCP Standard BMPs plus the additional measure for invasive species identified above, would ensure the proposed project would be in compliance with CEQA, MHCP, MBTA, and CFG Code. The NCMSCP has not been adopted but with the site being isolated from other lands in the unincorporated area, surrounded by development, and identified in NCMSCP maps as "developed" or "low quality habitat," the project site would play no role in conservation in the NCMSCP planning area.

After application of the MM BIO-1, no significant direct or indirect impacts to sensitive or special status, riparian or sensitive vegetation communities, species, wetlands, wildlife corridors or nursery sites, local policies, or ordinances, or be in conflict with the MHCP, NCMSCP, or any state or federal codes or treaties. As a result of the project design and MMRP, the proposed project would have a less than significant effect on biological resources.

V. Cultural and Tribal Cultural Resources *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074?	☐	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

The discussion below is based on the findings contained within the *Cultural Resources Survey for the Olive TSM/Annex Project* (*Cultural Report*) (HELIX Environmental Planning, Inc. [HELIX], 2019a) prepared for the proposed project. This report is on file and available for review with the COV's Planning Division.

Due to the approval of a General Plan Amendment sought by the applicant, the COV also initiated an SB-18 notification and consultation (per Government Code § 65352.3) with tribal governments per a requested list obtained from the California Native American Heritage Commission (NAHC).

DISCUSSION

a. LESS THAN SIGNIFICANT IMPACT. As stated in the *Cultural Report* (HELIX, 2019a), a records search at the South Coastal Information Center (SCIC) was conducted on June 12, 2019. The records search covered a one-mile radius around the project area and included historical resources, locations and citations for previous cultural resources studies, as well as a review of the state OHP historic properties directory. There were 10 historic buildings recorded within the records search area, which included eight residences and two commercial buildings dating between the 1940s and 1950s. None of these previously recorded buildings is situated within or near the project site.

In addition, historic topographic maps and aerial photographs were reviewed to assess the potential for historic structural resources. Also, a site visit was performed by Architectural Historian, Kris Reinicke, M.A., RPA, to evaluate historic built environment resources on the property. This included the identification and documentation of two historic structures dating to the 1930s; a single-family residence (the Mottino residence) and an associated barn. Department of Parks and Recreation (DPR) forms recording this resource were submitted to SCIC.

As discussed in the *Cultural Report* (HELIX, 2019a), the Mottino residence is a 1930s-era vernacular single-story, L-shaped home with overlapping front-facing gables, short eaves with fasçia, stucco cladding, and a composite roof. Modern additions to the residence include: a two-story covered patio with a spiral staircase

on the west side of the building dating to 1964-1967; a 1980-1984 single-story low-pitched roof addition, including a two-car garage located on the north and east sides of the covered patio; a covered porch with wood posts and a shed roof located on the eastern side of the 1980-1984 garage; a wood deck and covered patio situated along the entire eastern façade of the residence; and a wood gazebo with a seating area located approximately 50 feet west of the residence.

The Mottino barn, which was built at approximately the same time as the residence, is situated 170 feet to the east of the residence. Modern additions to the property include a tennis court dating to 1980-1989 and an L-shaped pool with an unknown construction date; neither was evaluated as they are clearly modern additions post-dating the construction of the barn and residence. The barn is currently used as a residence. A covered patio and shed were added to the barn sometime between 1967 and 1980.

The Mottino house and barn are recommended as ineligible for the California Register of Historical Resources (CRHR) under Criteria 1-4. Neither is associated with significant events that made a contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1). While the Mottino family is prominent in the history of Vista for their involvement with local agriculture (Criterion 2), these events most likely did not take place on this property. The buildings are both modest examples of vernacular architecture; they do not embody distinctive characteristics of a type, period, region, or method of construction, are not the work of a master, and do not possess high artistic value (Criterion 3). In addition, the buildings are a common property type not likely to yield important information pertaining to the history of the local area (Criterion 4). While both buildings retain integrity of Location and Materials, they do not retain integrity of Design, Setting, Materials, Workmanship, Feeling or Association.

While the Mottino house and barn have been recorded on appropriate DPR forms, they do not meet the criteria for listing in the CRHR. Therefore, these structures are not found to be significant resources under CEQA. As a result, implementation of the proposed project would have a less than significant impact on historic resources.

b - c. LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. As noted in the *Cultural Report* (HELIX, 2019a) the project site is situated approximately 0.3 miles south of Loma Alta Creek and 0.86 miles north of Buena Vista Creek, with Loma Alta Mountain located to the west and the San Marcos Mountains located to the east. The project site is relatively flat, with elevation at approximately 400 feet AMSL.

As stated above, a records search at the SCIC was conducted on June 12, 2019. The records search covered a one-mile radius around the project area and included archaeological resources. Further, the NAHC was contacted on June 05, 2019 to request a search of its Sacred Lands File (SLF) for USGS quadrangle information regarding the subject property, and a list of Native American individuals and organizations that might have knowledge of, or concerns regarding, cultural resources within the project area.

Historic topographic maps and aerial photographs were also reviewed to assess the potential for historic archaeological resources. Maps included the 1898 and 1901 Oceanside (1:62,500) topographic maps, the 1901 San Luis Rey (1:125,000) topographic map, and the 1948, 1949, 1968, and 1975 San Luis Rey (1:24,000) quadrangle (USGS 2019). Historic aerial photographs from 1938, 1946, 1953, 1964, 1967, and 1980 were reviewed at historicaerials.com (HELIX, 2019a; NETR Online, 2019). In addition, a HELIX archaeologist and a Luiseño Native American monitor from Saving Sacred Sites (San Luis Rey Band of Mission Indians [SLR Band], a traditionally and culturally affiliated tribe) surveyed the project area on June 13, 2019. The subject site was surveyed in five-meter parallel transects in open areas, and as possible in areas with heavy vegetation cover.

IMPACTS ON ARCHEOLOGICAL RESOURCES

According to the *Cultural Report* (HELIX, 2019), SCIC has a record of 49 cultural resources studies conducted within one mile of the project area (see Table 1 in the HELIX report). The recorded studies included one study that was situated within the project site for the construction of a cellular telephone antenna. Four others are located in proximity to the project boundaries and consist of a historic buildings survey covering the entire city of Vista, a cultural resources evaluation that did not include fieldwork but did cover the City in its entirety for the Vista/Buena Sanitation District Sewer Master Plan Update, a cultural and historical resource study for the City of Oceanside General Plan, and a cultural resources review for facilities maintenance and pipeline integrity and retrofitting by SDG&E. None of the resources recorded in these reports were within, or in the immediate vicinity of, the property. In addition, the *Cultural Report* (HELIX, 2019) also noted that SCIC has a record of 20 cultural resources recorded within a one-mile search radius. The recorded resources included 10 prehistoric habitation sites. Nine of the 10 prehistoric sites include evidence of habitation, of which two have rock art and bedrock milling associated with them. However, none of these recorded prehistoric resources are located within or near the subject property.

As noted above, a field investigation that consisted of a pedestrian survey of the project site was conducted in June 2019. The project site was found to consist of a vacant lot on the southern portion of the property and a house, barn, pool, and tennis court on the northern end of the project site. The house is located on the northwest portion of the property. A graded parking area is located south of the barn and a heavily vegetated parking area is located to the north of the house. Multiple vehicles were scattered throughout the property along with modern plastic, glass, and construction gravel. Ground visibility ranged between 100 percent in the graded parking area, to 50-70 percent in the vacant lot and parking area north of the house and barn, and 10-30 percent across the remainder of the property. There were no newly identified archaeological resources found on or adjacent to the project site.

Based on a review of the SCIC records search, reviews of maps and aerials photos, as well as the pedestrian survey of the site, no effects on known significant archeological resources under CEQA are anticipated. Nevertheless, given the cultural sensitivity of the general area as described above and in the *Cultural Report* (HELIX, 2019a), there is a potential for unknown subsurface cultural resources (pre-contact and historic) to be discovered during ground disturbing activities (such as grading) during the development of the project. The inadvertent discovery of unknown subsurface resources would be a potentially significant impact under CEQA. However, with the implementation of Mitigation Measures CR-1 to CR-5 listed below, potentially significant impacts to these archaeological resources would be reduced to less than significant levels.

IMPACTS ON TRIBAL CULTURAL RESOURCES

As discussed in the *Cultural Report* (HELIX, 2019a), prehistorically, both Buena Vista and Loma Alta creeks would have provided an excellent seasonal water source for local Native American populations. The accompanying riparian environment of the creeks held a variety of resources, as well as habitat for wildlife, which would have been utilized in multiple ways by these inhabitants. As noted in the report, the NAHC was contacted to conduct a check of its SLF. A response was received on June 20, 2019 stating that the results of the search were positive; however, no data regarding the kinds of resources present was provided. Letters were also sent to all tribal contacts provided by the NAHC on June 26, 2019, and additional outreach with tribal representatives was also conducted (HELIX, 2019a).

As previously noted, a field investigation that consisted of a pedestrian survey of the project site was conducted in June 2019 by a HELIX archaeologist and a Luiseño Native American monitor from Saving Sacred Sites. There were no newly identified tribal cultural resources found on or adjacent to the project site.

Based on a review of the SCIC records search, reviews of maps and aerials photos, as well as the pedestrian survey of the site, no effects on known significant tribal cultural resources under CEQA are anticipated. However, as noted in the *Cultural Report* a tribal representative of the SLR Band identified the site as having the potential for unknown tribal cultural resources and recommended Native American monitoring during construction. This was based on a previous field investigation of a nearby property that appeared to be the last area of intact soils in the vicinity, and a potential for buried resources (HELIX, 2019a). City staff also consulted with California Native American representatives per the requirements of AB 52 on the potential impacts of the project. It was agreed that there could be impacts to unknown tribal cultural resources during project construction resulting in an inadvertent discovery, which would be a potentially significant impact under CEQA. Therefore, based on the fact that the surrounding area is generally rich in cultural and tribal cultural resources, the response from the NAHC that a search of the SLF was positive for cultural resources, the recommendation of the SLR Band to HELIX, and the above-mentioned AB 52 consultations, Native American monitoring would be required for all ground disturbing activities during construction of the project. Therefore, with the implementation of Mitigation Measures CR-1 through CR-5 noted below, potentially significant impacts to unknown tribal cultural resources would be reduced to less than significant impacts.

MITIGATION MEASURES

CR-1 Cultural resource mitigation monitoring shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by, or may be discovered during, the construction of the proposed project. In addition, archaeological monitoring will address the identification, evaluation, treatment, and potential mitigation of impacts to historic archaeological resources encountered during construction. The monitoring shall consist of the full-time presence of a Qualified Archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor for, but not limited to, any clearing or grubbing of vegetation, tree removal, demolition and/or removal of remnant foundations, pavements, abandonment and/or installation of infrastructure; grading or any other ground disturbing or altering activities, including the placement of imported fill materials (note: all fill materials shall be absent of any and all cultural resources); and related off-site road improvements, including, but limited to, the installation of infrastructure, and the realignments and/or expansions to Olive A. Other tasks of the monitoring program shall include the following:

- The requirement for cultural resource mitigation monitoring shall be noted on all applicable construction documents, including demolition plans, grading plans, etc.
- Prior to the issuance of a Grading Permit, the Applicant or Owner, and/or Contractor shall provide a written and signed letter to the COV's Director of Community Development, stating that a Qualified Archaeologist and a TSA Native American Monitor have been retained at the Applicant or Owner and/or Contractor's expense to implement the monitoring program, as described in the pre-excavation agreement, noted below. A copy of the letter shall be included in the grading plan submittals for the Grading Permit.
- The Qualified Archaeologist and TCA Native American Monitor shall attend all applicable pre-construction meetings with the Contractor and/or associated Subcontractors to present the cultural monitoring program.

- The Qualified Archaeologist shall maintain ongoing collaborative consultation with the TCA Native American monitor during all ground-disturbing or ground-altering activities, as identified above. The Applicant and/or Owner, and/or Grading Contractor shall notify the Director of Community Development, preferably through e-mail, of the start and end of all ground-disturbing activities.
- The Qualified Archaeologist and/or TCA Native American monitor may halt ground disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the Qualified Archaeologist and the TSA Native American monitor, in consultation with the San Luis Rey Band. Ground disturbing activities shall not resume until the Qualified Archaeologist, in consultation with the TCA Native American monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the Qualified Archaeologist's discretion, the location of ground disturbing activities may be relocated elsewhere on the project site to avoid further disturbance of cultural resources.
- The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the COV as the Lead Agency under CEQA. If data recovery is required, then the San Luis Rey Band shall be notified and consulted in drafting and finalizing any such recovery plan.

CR-2 Prior to the issuance of a Grading Permit, and subject to approval of terms by the COV, the Applicant or Owner, and/or Contractor shall enter into a Pre-Excavation Agreement with the San Luis Rey Band. A copy of the signed Agreement shall be forwarded to the City Planner. The purpose of this agreement shall be to formalize protocols and procedures between the Applicant or Owner, and/or Contractor, and the San Luis Rey Band for the protection and treatment of, but not limited to, such items as Native American human remains, funerary objects, cultural and religious landscapes, ceremonial items, traditional gathering areas and cultural items located and/or discovered through the cultural resource mitigation monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, soil surveys, grading, or any other ground disturbing activities.

CR-3 Prior to the release of the Grading Bond, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, a Research Design, Data Recovery Program, etc.) shall be submitted by the Qualified Archaeologist, along with the TCA Native American monitor's notes and comments if necessary, to the COV's Director of Community Development for approval. Once reviewed and approved, the City shall submit a copy of the final report to the Rincon Band of Luiseño Indians.

CR-4 All cultural materials that are associated with burial and/or funerary goods will be repatriated to the Most Likely Descendant as determined by the Native American Heritage Commission per California Public Resources Code Section 5097.98.

CR-5 Recovered cultural material of historic significance shall be curated with accompanying catalog, photographs, and reports to a San Diego curation facility that meets federal standards per 36 CFR Part 79. Recovered cultural material of tribal cultural significance shall be repatriated as stipulated in the pre-excavation agreement as described in CR-2.

IMPACTS ON HUMAN REMAINS

The project site does not lie near any dedicated cemeteries. Further, as explained above, archaeological resources and tribal cultural resources have not been identified within or in the immediate vicinity of the project site. However, although disturbance of human remains is unlikely, it is possible that construction activity could inadvertently discover previously unknown vestiges. This would be considered a potentially significant impact under CEQA. However, implementation of Mitigation Measure CR-6 would ensure that human remains were treated with dignity and as specified by law, which would reduce this impact to a less than significant level.

MITIGATION MEASURE

CR-6 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 San Diego County Coroner's office by telephone. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie adjacent remains (as determined by the Qualified Archaeologist and/or the TCA Native American monitor) shall occur until the Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98. If such a discovery occurs, a temporary construction exclusion zone shall be established surrounding the area of the discovery so that the area would be protected (as determined by the Qualified Archaeologist and/or the TCA Native American monitor), and consultation and treatment could occur as prescribed by law. As further defined by State law, the Coroner would determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC would make determination as to the Most Likely Descendent. If Native American remains are discovered, the remains shall be kept “in situ” ("in place") or in a secure location in close proximity to where they were found, and the analysis of the remains shall only occur on-site in the presence of the TCA Native American monitor.

VI. Energy *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

DISCUSSION

a. LESS THAN SIGNIFICANT IMPACT.

BACKGROUND

Building Energy Conservation Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977 and are updated every three years (Title 24, Part 6, of the California Code of Regulations). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On June 10, 2015, the California Energy Commission (CEC) adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017. On May 9, 2018, the CEC adopted the 2019 Building Energy Efficiency Standards, which will take effect on January 1, 2020.

The 2016 Standards improved upon the previous 2013 Standards for new construction of and additions and alterations to residential and nonresidential buildings. Under the 2016 Standards, residential buildings are 28 percent more energy efficient and nonresidential buildings are five percent more energy efficient than under the 2013 Standards. Buildings that are constructed in accordance with the 2013 Building Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the prior 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features.

The 2019 Standards (which will take effect on January 1, 2020) will improve upon the 2016 Standards. Under the 2019 Title 24 standards, residential buildings are expected to be about seven percent more energy efficient, and when the required rooftop solar is factored in for low-rise residential construction, residential buildings that meet 2019 Title 24 standards would use about 53 percent less energy than those built to meet current standards.

Senate Bill 350

SB 350 was signed into law in September 2015 and establishes tiered increases to the Renewable Portfolio Standard—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 100 (discussed below) was signed into law September 2018 and increased the required Renewable Portfolio Standards.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100. Under SB 100, the total kilowatt-hours of energy sold by electricity retailers to their end-use customers must consist of at least 50 percent renewable resources by 2026, 60 percent renewable resources by 2030, and 100 percent renewable resources by 2045. SB 100 also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

CONSTRUCTION-RELATED ENERGY IMPACTS

The project would be constructed in two main phases. The first phase generally consists of site development, which would include demolition, grading the site and developing the building pads, installing wet and dry utilities, the private street, driveways, road improvements, and installing landscaping. Preliminary calculations of the overall mass grading of the site are estimated at 9,900 cubic yards (CY) of cut, 16,500 CY of fill, and import of 6,600 CY. The site development phase is estimated to be completed in approximately four to five months. The second phase, in which the 15 homes would be constructed, is subject to market forces; therefore, the timing and completion is unknown at this point. However, for analytical purposes it is estimated that construction of the entire project would take approximately 24 months to complete

Energy would be consumed during construction of the proposed project. Energy is required for such activities as the transportation of site and building materials, demolition of existing structures, grading, utility installation, paving, and building construction and architectural coating. Petroleum fuels (e.g., diesel and gasoline) and electricity would be the primary sources of energy for these activities. However, energy usage on the project site during construction would be temporary in nature. Energy usage during construction of the

project would only utilize the energy required, and would not be wasteful, inefficient, or unnecessary. Therefore, construction energy impacts would be less than significant, and mitigation is not required.

OPERATIONS-RELATED ENERGY IMPACTS

The proposed project would construct 15 single-family homes that would replace the existing 3,944 sq. ft. home. In total, the project would construct 27,000 sq. ft. of residential building area. Implementation of the proposed project would slightly increase the demand for electricity and natural gas at the project site relative to existing uses, as discussed below.

Electricity

Electricity would be used for multiple purposes including home heating and cooling, lighting, appliances, and electronics. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage. A comparison of existing and proposed electricity use is shown in Table E-1 below.

TABLE E-1 EXISTING AND PROPOSED ELECTRICITY USE

Residential Units	Rate[1] (kWh) Per Year	Total (kWh)
Existing - 1	8,096	8,096
Proposed - 15	8,096	121,438

1 Calculations for existing data based on 3,964 existing SF and CalEEMod Version 2016.3.2 (http://www.caleemod.com/.) Proposed project calculations based on SRA (2019a). Assumes compliance with 2016 Title 24 standards, although 2019 Standards may apply. kWh = kilowatt hour

As seen in Table E-1, at buildout once all 15 new homes have been constructed, the proposed project would result in total electricity consumption of 121,438 kWh assuming compliance with the 2016 Title 24 standards. However, implementation of the proposed project would ultimately involve the construction of 15 new homes that would likely be subject to 2019 Title 24 standards, which requires homes to be more energy efficient. Beginning in 2020, single-family homes built with the 2019 standards will use about seven percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, it is estimated that homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards.

The proposed project future homes may also exceed energy efficiency code requirements through project design. Therefore, the project's electricity demand would be anticipated to be lower than the calculations presented above. In addition to the measures that are part of 2019 Title 24 standards, the proposed project may include the following sustainability measures, which include energy efficiency measures, in its design:

- Photovoltaic solar rooftop installation
- Low-water-use appliances, in-home fixtures, and irrigation
- Low VOC (volatile organic compound) paints
- A community recycling program
- Energy Star appliances
- Energy-efficient LED lighting; appliance; and heating, ventilation, and air conditioning (HVAC) design
- Building insulation elements installed under the Home Energy Rating System rating agency
- Drought-tolerant landscaping

Although electricity consumption would increase due to the construction of the new 14 additional residences compared to existing conditions, the project's energy efficiency would be increased through the updated Title 24 requirements compared to the existing development, including additional efficiencies that may be realized through implementation of the design measures outlined above. Therefore, the proposed project's electricity consumption would not be considered wasteful, unnecessary or inefficient. As a result, project impacts would be less than significant.

Natural Gas

Natural gas is anticipated to be used for home heating and appliances. A comparison of existing and proposed natural gas use is shown in Table E-2 below.

TABLE E-2 EXISTING AND PROPOSED NATURAL GAS USE

Residential Units	Rate [2] (kBTU) Per Year	Total (kBTU/yr.)
Existing - 1	23,387	23,387
Proposed – 15	23,387	350,804

2 Per SRA (2019a) Anticipated rate due to compliance with 2016 Title 24 although 2019 Standards map apply. kBTU = Thousand British Thermal Units. A cubic foot of natural gas has 1,015 BTUs.

As seen in Table E-2 above, although the proposed project would result in a net increase in total natural gas consumption compared to the existing single residence on site, the amount of natural gas used per square foot is anticipated to decrease upon project implementation due to compliance with newer (2016) Title 24 Standards. In addition, as stated above the construction of 15 new homes that would likely be subject to 2019 Title 24 standards, which requires homes to be more energy efficient than the 2016 standards. Therefore, the proposed project's natural gas consumption would not be considered wasteful, unnecessary or inefficient. As a result, project impacts would be less than significant.

FUEL

Construction of the project would require consumption of petroleum fuels (gasoline and diesel fuel) by construction workers travelling to and from the site, by trucks delivering construction materials and supplies to the site, and by construction equipment usage. Once the project is completed and occupied, gasoline and diesel fuel would continue to be consumed by residents, visitors, delivery vehicles, etc. traveling to and from the site.

The computer modeling of the project's air pollutant emissions described in detail in Section III, Air Quality, utilized standard fuel consumption estimates to calculate that project construction activities would require approximately 75,665 gallons of diesel fuel[6]. Statewide retail diesel sales in 2017 totaled 1.74 billion gallons[7]. If you conservatively assume that all of construction occurs within a one-year period, project construction would consume approximately 0.004 percent of diesel that is consumed annually in the State. This increase in diesel fuel consumption would be temporary, of relatively short duration, and would cease once project construction is completed. This minor increase in fuel consumption would not require the development of new petroleum supplies or construction of new production or distribution facilities. Therefore, the consumption of fuel during project construction would have a less than significant impact on energy resources.

The project would generate 150 daily trips and the estimated annual vehicle miles traveled for the proposed project would be approximately 428,296 miles, requiring approximately 19,490 gallons of gasoline per year. Statewide retail sales of gasoline in 2017 totaled 13.9 billion gallons[8]. Project operations would consume approximately 0.0001 percent of gasoline that is consumed annually in the State. This minor increase in fuel consumption would not require the development of new petroleum supplies or construction of new production or distribution facilities. Project operations would not consume energy resources in a wasteful or inefficient manner and would therefore have a less than significant impact on the consumption of energy resources.

b. LESS THAN SIGNIFICANT IMPACT.

Electricity and natural gas are supplied to the project site by SDG&E. The sources of power for SDG&E include 33 percent renewable energy sources (solar, wind, and hydroelectric). Although the proposed project would result in a net increase in total square footage and in total electricity and natural gas consumption, implementation of the project would provide an upgraded residential development that includes greater energy efficiency, sustainable design measures, and incorporates best practices for water conservation, and likely implementation of green construction methods. Furthermore, the project would not require new or expanded energy generation or infrastructure facilities. As a result, the proposed project would not have an adverse effect on State or local plans for renewable energy or energy efficiency, and impacts would be less than significant.

6 Fuel usage is estimated using the CalEEMod output for CO2, and a kgCO2/gallon conversion factor, as cited in the *U.S. Energy Information Administration Voluntary Reporting of Greenhouse Gases Program*, https://www.eia.gov/environment/pdfpages/0608s(2009)index.php.
7 California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2019. http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html.
8 California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2019. http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html.

VII. Geology and Soils *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) 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 or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. 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?	☐	☐	☒	☐
d. 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?	☐	☐	☒	☐
e. 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?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

The majority of the discussion below is summarized and based on the findings contained within the *Report of Preliminary Geotechnical Investigation* for the Olive TSM/Annex Project (*Geotech Report*) (Christian Wheeler Engineering [CWE], 2017) prepared for the proposed project. This report is on file and available for review with the COV's Planning Division.

DISCUSSION

a1. NO IMPACT. The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to mitigate the hazard of surface faulting by preventing the construction of buildings used for human occupancy over an area with known faults. Unlike damage from ground shaking, which can occur at great distances from the fault, impacts from fault rupture are limited to the immediate area of the fault zone where the fault breaks along the grounds surface. As discussed in the *Geotech Report* (CWE, 2017), the project site does not contain, nor is it adjacent to, an Alquist-Priolo Special Study Zone Area. Therefore, impacts from fault rupture would not be expected to occur within the project area, and no impacts would arise from implementing the project.

a2 – a3. LESS THAN SIGNIFICANT IMPACT. The project area, like most of southern California, is subject to strong ground shaking from seismic events. Consequently, when the project is occupied it could expose people and/or structures to potential impacts associated with seismic ground shaking. The ground motion characteristics of any future earthquakes in the region would depend on the characteristics of the generating fault, the distance to the epicenter, the magnitude of the earthquake, and the site-specific geologic conditions. Major faults in the region could be a source of a strong seismic-related movement at the project site. The closest active faults to the site are the Newport-Inglewood-Rose Canyon Fault Zone to the west and the Elsinore-Temecula fault to the east, located approximately 9.4 miles (15.2 km) and 19.5 miles (31.4 km), respectively, from the site. The San Andreas Fault, which is the largest active fault in California, is approximately 60 miles (96 km) northeast of the site. The 15 future homes anticipated to be built on the site would be constructed in compliance with the seismic safety standards set forth in the California Building Code (CBC), as amended.[9] Compliance with the CBC would include the incorporation of: 1) seismic safety features to minimize the potential for significant effects as a result of earthquakes; 2) proper building footings and foundations; and 3) construction of the building structure so that it would withstand the effects of strong ground shaking. In addition, the COV's Building Department would review the building plans through building plan checks, issuance of a building permit, and inspection of the residences during construction, which would ensure that all required CBC seismic safety measures are incorporated into all of the homes. Compliance with the CBC and the Building Department's review process, permit application, and inspection would result in less than significant impacts, and no mitigation measures are required.

The proposed project would not expose people and structures to potential seismic-related ground failure, including liquefaction. Liquefaction is a phenomenon in which a saturated cohesionless soil causes a temporary transformation of the soil to a fluid mass, resulting in a loss of support. Groundwater was not encountered during subsurface investigations done for the *Geotech Report* (CWE, 2017). Because of the dense nature of the soil materials underlying the site and the lack of near surface water, the potential for liquefaction or seismically induced dynamic settlement at the site is considered low. Compliance with the CBC would include the incorporation of seismic safety features to minimize any potential for significant effects as a result of seismic-related ground failure, resulting in less than significant impacts.

9 The CBC incorporates relevant sections of the Uniform Building Code of the International Conference of Building Officials.

a4. LESS THAN SIGNIFICANT IMPACT. According to the *Geotech Report* (CWE, 2017), the Relative Landslide Susceptibility and Landslide Distribution Map of the Oceanside Quadrangle prepared by the California Division of Mines and Geology indicate that the southern portion of the subject site is situated within Relative Landslide Susceptibility Area 3-1. Area 3-1 is considered to be "generally susceptible" to slope failures. The northern portion of the site and adjacent slope areas, however, are situated within Relative Landslide Susceptibility Area 4-1. Area 4 is considered to be a "most susceptible" to slope failures; Subarea 4-1 includes slopes considered to be generally outside of the limits of known landslides (CWE, 2017). Based on our investigation, the site was found to be underlain at shallow depths by very dense, well-consolidated, mudstones and sandstones of the Santiago Formation. CWE conducted quantitative slope stability analyses of the existing slopes at the north and northwest portions of the site. The slope stability analyses were performed incorporating both circular- and block-type modes of failure that may be anticipated based on the bedding attitudes of the Tertiary-age sediments in the slope. Both static and pseudo-static conditions were included according to the *Geotech Report* (CWE, 2017). The results of the stability analyses indicate that the lowest static factors-of-safety for the slope are in excess of 1.5, which is the minimum that is generally considered to be stable. The pseudo-static stability analyses indicate that the lowest factors-of-safety for the slope and adjacent areas are in excess of 1.1, which is the minimum that is generally considered to be stable. Therefore, implementation of the proposed project would not be adversely affected by landslides originating on-site, resulting in less than significant impacts.

b - d. LESS THAN SIGNIFICANT IMPACT. The underlying geology of the project site is designated as Santiago Formation, a sedimentary rock which generally consists of sandstone, conglomerate, and mudrocks. According to the *Geotech Report* (CWE, 2017), the subsurface on-site investigation consisted of visual observation of six exploratory borings in the general areas of the proposed development, logging of soil types encountered, and sampling of soils for laboratory testing. As found in the exploratory borings, the site soil profiles consisted of topsoil and subsoil with sandstone/siltstone (sedimentary rock) found below the topsoil and subsoil. The topsoil and subsoil extend to depths between one to eight feet below the surface. Artificial fill was found on one of the on-site borings. The materials consist of greyish to light yellowish brown (fill), dry to damp, fine to medium grained, sandy clay, clayey sand, and silty clay with gravels. Topsoil and fill materials are not considered suitable for the support of structures in their present state. Based on the soil tests, the on-site materials generally possess potentials for expansion in the medium to high range. Beneath the topsoil the materials are considered suitable for the support of structures and structural improvements, provided that the recommendations of the *Geotech Report* (CWE, 2017) are followed. The recommendations include that existing potentially compressible soils (artificial fill, topsoil, and subsoil) underlying proposed structures, associated improvements and new fills be removed in their entirety to a maximum removal depth of about 7 feet below existing grade.

As required under the City's Grading Ordinance (Municipal Code Chapter 17.56), the recommendations in the *Geotech Report* (CWE, 2017) and any additional geotechnical studies must be followed during grading and site preparation activities. With implementation of these recommendations, as well as the required application of standard erosion control measures and storm water construction BMPs, less than significant impacts are anticipated regarding soil erosion or loss of topsoil during project construction.

As stated in the *Geotech Report* (CWE, 2017), the potential for on-site or off-site landslides, lateral spreading, liquefaction, or seismically induced dynamic settlement to occur is considered low, and therefore less than significant.

As noted above, all of the underlying soils possess potentials for expansion in the medium to high range. Given the remedial grading requirements and other recommendations in the *Geotech Report* (CWE, 2017) that the COV requires in submittals for the Grading Permit, less than significant impacts would arise from the expansive soils.

e. NO IMPACT. The existing residential development on-site utilizes a septic system (CWE, 2019). However, the proposed project would tie into existing sewers, avoiding the need to use septic tanks or alternative wastewater disposal systems. Therefore, no impacts would occur.

f. LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The probability of discovering paleontological resources depends on the geologic formation being excavated, and the depth and volume of the excavation. Sedimentary rocks, such as those found in coastal areas, usually contain fossils. Granite rocks, such as those found in inland areas, generally will not contain fossils. As stated above, the sandstone/siltstone identified below the fill and topsoil is part of the underlying Santiago Formation that is found in this portion of San Diego County. According to the County's web-based *Zoning and Property Information Tool* (2015), the project site is considered to have a high paleontological sensitivity because of the underlying Santiago Formation and is subject to paleontological monitoring. Therefore, due to the extensive amount of grading estimated at 9,900 CY of cut and 16,500 CY of fill (includes 6,600 CY of import) in this highly sensitivity area, impacts to paleontological resources would be considered significant. However, with the implementation of the monitoring mitigation measures, below, potential impacts would be reduced to less than significant levels.

MITIGATION MEASURES

GS-1 Due to the high potential for uncovering fossils, paleontological resources mitigation monitoring shall be undertaken for on-site mass grading activities. Paleontological monitoring shall be conducted to provide for the identification, evaluation, and recovery of any exposed fossil remains that may be discovered during the construction of the proposed project. The monitoring shall consist of the on-site presence of a Qualified Paleontologist (or a Paleontological Resources Monitor under the supervision of a Qualified Paleontologist) during initial cutting, grading or excavation into the underlying Santiago Formation. Other tasks of the monitoring program shall include the following:

- Prior to the issuance of a Grading Permit, the Applicant or Owner, and/or Contractor shall provide a written and signed letter to the COV's Director of Community Development, stating that a Qualified Paleontologist (or a Paleontological Resources Monitor under the supervision of the Qualified Paleontologist) has been retained at the Applicant or Owner and/or Contractor's expense to implement the monitoring program. A copy of the letter shall be included in the Grading Plan Submittals for the Grading Permit.
- The requirement for paleontological resource mitigation monitoring shall be noted on all grading plans.
- The Qualified Paleontologist shall attend all pre-grading/pre-construction meetings to consult with grading contractors regarding the requirement of monitoring for paleontological resources.

GS-2 If paleontological resources are unearthed, the Qualified Paleontologist (or a Paleontological Monitor under supervision of a Qualified Paleontologist) shall:

- Direct, divert, or halt any grading or excavation activity until such time that the sensitivity of the resource can be determined, and the appropriate recovery implemented.
- Grading activities shall not resume until the Qualified Paleontologist, or Paleontological Monitor, deems the fossil has been appropriately documented and/or protected. At the Paleontologist Archaeologist's discretion, the location of grading activities may be relocated elsewhere on the project site to avoid further disturbance of the paleontological resources.
- Salvage unearthed fossil remains, including simple excavation of exposed specimens or, if necessary, other required methods (e.g., plaster-jacketing of large and/or fragile specimens).
- Record stratigraphic and geologic data to provide a context for the recovered fossil remains, if feasible, and photographic documentation of the geologic setting.
- Curate, catalog and identify all fossil remains, and transfer the cataloged fossil remains to an accredited institution (museum or university) in California that maintains paleontological collections for archival storage and/or display.

VIII. Greenhouse Gas Emissions *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

The discussion below is based on the findings contained within the *Greenhouse Gas Analysis for the Olive Avenue TSM/Annex Project (GHG Report)* prepared by Scientific Resources Associated June 5, 2019, (SRA, 2019b) prepared for the proposed project. This report is on file and available for review in the COV's Planning Division office.

DISCUSSION

a - b. LESS THAN SIGNIFICANT IMPACT.

BACKGROUND

Global Climate Change (or GCC) refers to changes in the average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and storms. Global warming, a related concept, is the observed increase in average temperature of the Earth's surface and atmosphere caused by increased greenhouse gas (GHG) emissions, which can contribute to changes in global climate patterns resulting in global climate change.[10] In response to Executive Order (EO) S-3-05 (June 2005), which declared California's vulnerability to climate change, the California Global Warming Solutions Act of 2006, Assembly Bill 32 (AB 32) was signed into effect on September 27, 2006. In passing the bill, the California Legislature found that "*Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California*…" (California Health & Safety Code, Division 25.5, Part 1).

GENERAL PRINCIPLES

According to the *GHG Report* (SRA, 2019b), global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O), which are known as greenhouse gases (GHGs). These gases allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere, much like a greenhouse. GHGs are emitted by both natural processes and human activities. Without these natural GHGs, the Earth's temperature would be about 61 degrees Fahrenheit cooler. Emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere. For example, data from ice cores indicate that CO_2 concentrations remained steady prior to the current period for approximately 10,000 years; however, concentrations of CO_2 have increased in the atmosphere since the industrial revolution.

10 City of Vista Climate Action Plan (CAP), 2012-2013 edition.

GCC and GHGs have been at the center of a widely contested political, economic, and scientific debate. Although the conceptual existence of GCC is generally accepted, the extent to which GHGs generally, and specifically how anthropogenic-induced GHGs (mainly CO_2, CH_4 and N_2O) contribute to it, remains a source of debate. The State of California has been at the forefront of developing solutions to address GCC.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The IPCC concluded that a stabilization of GHGs at 400 to 450 ppm CO_2 equivalent concentration is required to keep global mean warming below 35.6° Fahrenheit (2° Celsius), which is assumed to be necessary to avoid dangerous climate change (Association of Environmental Professionals 2007).

State law defines greenhouse gases as any of the following compounds: CO_2, CH_4, N_2O, and fluorinated gases (i.e., hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride). CO_2, followed by CH_4 and N_2O, are the most common GHGs that result from human activity. The three primary GHGs discussed in the *GHG Report* (SRA, 2018) are described below. A quantitative analysis of fluorinated gases was not included in the report because the other gases discussed below are more common and generally occur in greater quantities for longer periods of time. The three principal GHGs are described below.

- CO_2 is released into the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., cement production) and deforestation. Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- CH_4 is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from agricultural practices, such as the raising of livestock, and by the decomposition of organic waste in landfills.
- N_2O is emitted during agricultural and industrial activities, as well as during the burning of fossil fuels and solid waste.

SOURCES AND GLOBAL WARMING POTENTIALS OF GHGS

Anthropogenic sources of CO_2 include combustion of fossil fuels (coal, oil, natural gas, gasoline and wood). CH_4 is the main component of natural gas and also arises naturally from anaerobic decay of organic matter. Accordingly, anthropogenic sources of CH_4 include landfills, fermentation of manure and cattle farming. Anthropogenic sources of N_2O include combustion of fossil fuels and industrial processes such as nylon production and production of nitric acid. Other GHGs are present in trace amounts in the atmosphere and are generated from various industrial or other uses.

According to the *GHG Report* (SRA, 2019b), each GHG has a different potential for trapping heat in the atmosphere, called global warming potential (GWP). GWP for a gas is a measure of the total energy that a gas absorbs over a particular period of time (usually 100 years), compared to CO_2. CO_2 is the primary GHG emitted through human activities and is typically used as a baseline in the analysis and reporting of GHGs. GHG emissions are typically reported in metric tons (MT) of carbon dioxide equivalent (CO_2e) units, or in millions of metric tons (MMT). When dealing with an array of emissions, the gases are converted to their carbon dioxide equivalents for comparison purposes. The global warming potential for CH_4 and N_2O is 21 and 310, respectively.[11]

11 U.S. Environmental Protection Agency, September 9, 2013, http://www.epa.gov/climatechange/ghgemissions/.

REGULATORY FRAMEWORK

The *GHG Report* (SRA, 2019b) identifies a number of international, national, State, and local requirements, regulations, and standards regarding GHG emissions. However, the section below focuses on State and COV regulations and standards. See the *GHG Report* (SRA, 2019b) for detailed information on international and national GHG emissions standards.

STATE OF CALIFORNIA

The following subsections describe regulations and standards that have been adopted by the State of California to address GCC issues.

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 - In September 2006, Governor Schwarzenegger signed AB 32 into law. AB 32 required that, by January 1, 2008, the California Air Resources Board (CARB) determine what the statewide GHG emissions level was in 1990 and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. The CARB adopted its *AB 32 Scoping Plan* in December 2008 (CARB, 2008a), which provided estimates of the 1990 GHG emissions level and identified sectors for the reduction of GHG emissions. The CARB estimated that the 1990 GHG emissions level was 427 MMT net CO_2e (CARB, 2007). The CARB estimates that a reduction of 173 MMT net CO_2e emissions below business-as-usual would be required by 2020 to meet the 1990 levels. This amounts to roughly a 28.35 percent reduction from projected business-as-usual levels in 2020. In 2011, the CARB developed a *Supplement to the AB 32 Scoping Plan* (*Scoping Plan Supplement*) (CARB, 2011). The *Supplement* updated the emissions inventory based on current projections for "business as usual" (BAU) emissions to 506.8 MT of CO_2e. The updated projection included adopted measures (Pavley 1 Fuel Efficiency Standards, 20 percent Renewable Portfolio Standard (RPS) requirement, etc.), and estimated that an additional 16 percent reduction below the estimated BAU levels would be necessary to return to 1990 levels by 2020.

In 2014, the CARB published its *First Update to the Climate Change Scoping Plan* (CARB, 2014). This update indicates that the State is on target to meet the goal of reducing GHG emissions to 1990 level by 2020. The *First Update* tracks progress in achieving the goals of AB 32 and lays out a new set of actions that will move the State further along the path to achieving the 2050 goal of reducing emissions to 80 percent below 1990 levels. While the *First Update* discusses setting a mid-term target, the plan does not yet set a quantifiable target toward meeting the 2050 goal.

Senate Bill (SB) 97 - SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. SB 97 directed the Governor's Office of Planning and Research (OPR) to develop draft CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of OPR published a technical advisory on CEQA and climate change on June 19, 2008. The guidance did not include a suggested threshold but stated that the OPR had asked the CARB to "recommend a method for setting thresholds which will encourage consistency and uniformity in the CEQA analysis of greenhouse gas emissions throughout the state."

The OPR technical advisory does recommend that CEQA analyses include the following components:

- Identification of greenhouse gas emissions;
- Determination of significance; and
- Mitigation of impacts, as needed and as feasible.

On December 31, 2009, the California Natural Resources Agency adopted the proposed amendments to the State CEQA Guidelines. These amendments became effective on March 18, 2010.

Executive Order (EO) S-3-05 - EO S-3-05, signed by Governor Schwarzenegger on June 1, 2005, calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80 percent reduction in GHG emissions below 1990 levels by 2050. EO S-3-05 also calls for the California EPA (CalEPA) to prepare biennial science reports on the potential impact of continued GCC on certain sectors of the California economy. The first of these reports, "Our Changing Climate: Assessing Risks to California", and its supporting document "Scenarios of Climate Change in California: An Overview" were published by the California Climate Change Center in 2006.

EO B-30-15 - EO B-30-15 was enacted by the Governor on April 29, 2015. EO B-30-15 establishes an interim GHG emission reduction goal for the state of California to reduce GHG emissions to 40 percent below 1990 levels by the year 2030. This EO directs all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in EO S-3-05 to reduce GHG emissions to 80 percent below 1990 levels by the year 2050. The EO directs CARB to update its Scoping Plan to address the 2030 goal. It is anticipated that the CARB will develop statewide inventory projection data for 2030 and commence efforts to identify reduction strategies capable of securing emission reductions that allow for achievement of the new interim goal for 2030. With regards to the local agencies, the EO does not require local agencies to take any action to meet the new interim GHG reduction threshold as it was not adopted by a public agency through a public review process that requires analysis pursuant to State CEQA Guidelines Section 15064.4. In addition, it has not been subsequently validated by a statute as an official GHG reduction target of the State of California. The EO itself states it is "not intended to create, and does not, create any rights or benefits, whether substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person."

EO S-21-09 - EO S-21-09 was enacted by the Governor on September 15, 2009. EO S-21-09 required that the CARB, under its AB 32 authority, adopt a regulation by July 31, 2010 that sets a 33 percent renewable energy target. Under EO S-21-09, the CARB will work with the Public Utilities Commission and California Energy Commission to encourage the creation and use of renewable energy sources and will regulate all California utilities. The CARB will also consult with the Independent System Operator and other load balancing authorities on the impacts on reliability, renewable integration requirements, and interactions with wholesale power markets in carrying out the provisions of the EO. The order required the CARB to establish highest priority for those resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health.

California Code of Regulations Title 24 - Although not originally intended to reduce greenhouse gas emissions, Title 24 of the California Code of Regulations, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow for the consideration and possible incorporation of new energy efficiency technologies and methods. Energy efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in greenhouse gas emissions. Therefore, increased energy efficiency results in decreased greenhouse gas emissions. Accordingly, Title 24 in the CALGreen Building Code is now a part of the statewide strategy for reducing GHG emissions and is the only statewide plan for reduction of GHG emissions that every local agency must adopt in a public hearing by adopting the state building code. Consistent with CALGreen, the state recognized that GHG reductions would be achieved through buildings that exceed minimum energy-efficiency standards, decrease consumption of potable water, reduce sold waste during construction and operation, and incorporate sustainable materials. CARB projects that an additional 26.3 $MMTCO_2e$ could be reduced through expanded green building (CARB 2008). Compliance with Title 24 of the CALGreen Building Code is thus a vehicle to achieve statewide electricity and natural gas efficiency targets, and lower GHG emissions from waste and water transport sectors.

SB 1078, SB 107, and EO S-14-08 - SB 1078 initially set a target of 20 percent of energy to be sold from renewable sources by the year 2017. The schedule for implementation of the RPS was accelerated in 2006 with the Governor's signing of SB 107, which accelerated the 20 percent RPS goal from 2017 to 2010. On November 17, 2008, the Governor signed EO S-14-08, which requires all retail sellers of electricity to serve 33 percent of their load with renewable energy by 2020. The Governor signed EO S-21-09 on September 15, 2009, which directed CARB to implement a regulation consistent with the 2020 33 percent renewable energy target by July 31, 2010. The 33 percent RPS was adopted in 2010.

State Standards Addressing Vehicular Emissions - California AB 1493 (Pavley) enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. Regulations adopted by CARB would apply to 2009 and later model year vehicles. CARB estimated that the regulation would reduce climate change emissions from light duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030 (AEP 2007). Once implemented, emissions from new light-duty vehicles are expected to be reduced in San Diego County by up to 21 percent by 2020.

The CARB has adopted amendments to the Pavley regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments, approved by the CARB Board on September 24, 2009, are part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016, and prepare California to harmonize its rules with the federal rules for passenger vehicles.

EO S-01-07 - EO S-01-07 was enacted by the Governor on January 18, 2007, and mandates that: 1) a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and 2) a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California. According to the SDCGHGI, the effects of the LCFS would be a 10 percent reduction in GHG emissions from fuel use by 2020. On April 23, 2009, the CARB adopted regulations to implement the LCFS.

SB 375 - SB 375 finds that GHG from autos and light trucks can be substantially reduced by new vehicle technology, but even so "it will be necessary to achieve significant additional greenhouse gas reductions from changed land use patterns and improved transportation. Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." Therefore, SB 375 requires that regions with metropolitan planning organizations adopt sustainable communities' strategies, as part of their regional transportation plans, which are designed to achieve certain goals for the reduction of GHG emissions from mobile sources.

SB 375 also includes CEQA streamlining provisions for "transit priority projects" that are consistent with an adopted sustainable communities' strategy. As defined in SB 375, a "transit priority project" shall: (1) contain at least 50 percent residential use, based on total building square footage and, if the project contains between 26 and 50 percent nonresidential uses, a floor area ratio of not less than 0.75; (2) provide a maximum net density of at least 20 dwelling units per acre; and (3) be within 0.5 mile of a major transit stop or high quality transit corridor.

CITY OF VISTA

General Plan 2030 Update - In December 2011, the COV adopted GP 2030 (City of Vista, 2011a) and certified the accompanying Program EIR (PEIR) (City of Vista, 2011b). The PEIR included Mitigation Measure MCC1, which required the COV to implement a quantified Climate Action Plan (CAP) within 24 months of adoption of GP 2030. GP 2030 includes a Resource Conservation and Sustainability Element, which includes the following: "RCS Goal 2: Reduce GHG emissions from community activities and municipal facilities and operations within the city boundaries to support the State's efforts under Assembly Bill 32, Senate Bill 375, and other State and federal mandates, and to mitigate the community's contributions to global climate change." The GP 2030 policy that applies to the project includes the following:

> *RCS Policy 2.7: Through California Environmental Quality Act (CEQA) documents, evaluate and disclose the contribution new projects could have on climate change and require mitigation measures as appropriate.*

Climate Action Plan - The COV adopted its CAP in 2013 to reduce GHG emissions in Vista in order to comply with AB 32. The CAP provided an estimate of BAU emissions by the year 2020, and a projection of the amount of reductions needed to meet the COV's requirement to reduce GHG emissions to 1990 levels. The CAP estimated that a reduction of 27,187 metric tons of CO_2e would be required. The CAP adopts climate action measures designed to provide the necessary reductions to meet the 2020 target. The measures that would apply to development projects include energy efficiency measures, transportation and land use measures designed to reduce vehicle miles traveled, and solid waste reduction measures.

THRESHOLD OF SIGNIFICANCE

According to the California Natural Resources Agency (July 2009), "due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis." Significance criteria were developed in Appendix G of the CEQA Guidelines.

In the "Draft PEIR for the Vista General Plan 2030 Update" (City of Vista 2011), the following criteria were used to establish the significance of GCC emissions:

The project would have a significant impact if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
- Expose property and persons to the physical effects of climate change, including but not limited to flooding, public health, wildfire risk or other impacts resulting from climate change.

The California Resources Agency adopted an Amendment to the State CEQA Guidelines to assist lead agencies in determining the significance of impact from GHG emissions. State CEQA Guidelines Section 15064.4, CEQA Guidelines for Determining the Significance of Impacts from Greenhouse Gas Emissions, states the following:

> *a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:*
>
> *1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or*
>
> *2) Rely on a qualitative analysis or performance-based standards.*
>
> *b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:*
>
> *1) The extent to which the project may increase or reduce greenhouse gas 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 greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.*

The COV has not established a GHG significance threshold to date. Several lead agencies in California have adopted a screening threshold as recommended by the CAPCOA Report, CEQA and Climate Change – Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, which proposes a screening-level threshold of 900 metric tons of CO_2e to evaluate whether a project must conduct further analysis.

Pursuant to Section 15064.4(a) of the State CEQA Guidelines, the COV has determined in the context of this particular project that there are no cumulatively considerable impacts to GHG where there is substantial evidence that this project is making a "fair share contribution"[12] to reducing GHG Emissions in a manner that assists in making substantial progress toward meeting 2020 and post-2020 GHG emissions targets either quantitatively or qualitatively.

With regards to whether the proposed project is making a fair share contribution, and therefore substantial progress, towards meeting 2020 GHG emissions targets set forth in the COV's CAP, if the total project GHG emissions in its first fully operational is less than a "bright line" threshold of 1,185 metric tons of CO_2e, then the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.[13] Therefore, the project's emissions were evaluated based on this threshold.[14]

With regards to whether the proposed project is making a fair share contribution, and therefore substantial progress, towards meeting post-2020 GHG emissions targets set forth in Executive Order S-3-05, consistent with CARB's First Update to the Scoping Plan, the COV has determined that a fair share is provided if the project does not interfere with the State's implementation of GHG reduction programs identified for residential and commercial development. Provided the project is consistent with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of greenhouse gas emissions, it would not result in a significant impact.

GHG IMPACTS

As discussed in the *GHG Report* (SRA, 2019b), GHG emissions associated with the proposed project were estimated for six categories of emissions: (1) construction emissions; (2) area sources; (3) energy use, including electricity and natural gas usage; (4) water use, including consumption, use, and treatment; (5) solid waste management, and (6) vehicles. The analysis also includes a baseline estimate that assumes 2008 Title 24-compliant buildings, which is considered business as usual for the project. The complete emissions inventory is included in the Appendix of the *GHG Report* (SRA, 2019b).

EXISTING GHG EMISSIONS

As discussed above, the project site is currently occupied by a single residence and as it exists, the site is a source of GHG emissions. It is not possible to accurately quantify emissions from the existing operations due to lack of specific information.

12 A project's contribution is less than cumulatively considerable if the project is required to implement… "*its fair share of a mitigation measure or measures designed to alleviate the cumulative impact*" (State CEQA Guidelines Section 15130(a)(3), emphasis added). Measures to mitigate a project's GHG impacts broadly include "*reductions in emissions resulting from a project though implementation of project features, project design, or other measures*." and that such measures must have an "*essential nexus*" and be "*roughly proportionate*" to the project (State CEQA Guidelines section 15126.4 (a)(4),(c)(2); emphasis added).

13 City's Interim Policy of Greenhouse Gas Emissions Significance Thresholds (April 6, 2016).

14 The "Bright Line" threshold is based on a review of projects within the City of Vista, where it was determined that a level of 1,185 metric tons of CO_2e would capture 90 percent of the City's emissions that are attributable to development projects.

CONSTRUCTION GHG EMISSIONS

Construction GHG emissions include emissions from heavy construction equipment, truck traffic, and worker trips. Construction GHG emissions were calculated using the CalEEMod (SCAQMD 2016). CalEEMod contains emission factors from the OFFROAD2007 model for heavy construction equipment and from the EMFAC2014 model for on-road vehicles. Table GHG-1 below presents the construction-related emissions associated with construction of the proposed project.

Per guidance from the SCAQMD, construction emissions are amortized over a 30-year period to account for the contribution of construction emissions over the lifetime of the proposed project. Amortizing the emissions from construction of the proposed project over a 30-year period would result in an annual contribution of approximately 25 metric tons of CO_2e. These emissions are added to operational emissions to account for the contribution of construction to GHG emissions for the lifetime of the proposed project.

TABLE GHG-1 ESTIMATED CONSTRUCTION GHG EMISSIONS

Construction Phase	CO_2e Emissions (Metric tons)
Total Construction Emissions	767

Source: SRA, 2019b

OPERATIONAL GHG EMISSIONS

The proposed project includes the operation of 15 single-family residences. Under the operation of the proposed project, the relevant emissions would include direct emissions from mobile source emissions and indirect emissions from electricity use and other sources. Emissions were estimated using the methodologies described below.

Area Sources - The CalEEMod assumes that area source emissions associated with residential projects would include use of fireplaces (assumed to be natural gas), as well as minor use of landscaping equipment. GHG emissions were calculated based on use of the fireplaces 30 days per year, three hours per day.

Energy Use - As discussed above, the CalEEMod assumes a baseline of 2016 Title 24 standards. The baseline energy use provides a conservative estimate of current energy requirements relative to future energy requirements. The Title 24 Standards have been updated in 2019 and are scheduled to be updated periodically and will likely improve energy efficiency further.

Water Usage - Water usage was estimated based on the CalEEMod. The GHG emissions associated with water usage, conveyance, treatment, and wastewater disposal are included within the CalEEMod calculations. For the purpose of this analysis, it was assumed that residences would be equipped with low-flow fixtures and with irrigation systems that are water-efficient.

Vehicle Emissions - Based on the CalEEMod, the proposed project would generate 10 trips per residential dwelling per day (150 total trips per day). Emissions were calculated based on the CalEEMod, which is based on the EMFAC2014 emission factors.

Solid Waste - The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, transportation of waste, and disposal. Solid waste generation rates were estimated from CalEEMod, and GHG emissions from solid waste management were estimated using the model, assuming landfilling of solid waste with flaring. It was assumed that 50percent of solid waste would be recycled based on state solid waste reduction goals.

OPERATIONAL GHG EMISSIONS SUMMARY

The results of the inventory for operational emissions for business as usual are presented in Table GHG-2. These include GHG emissions associated with buildings (natural gas, purchased electricity), water consumption (energy embodied in potable water), solid waste management (including transport and landfill gas generation), and vehicles. Table GHG-2 summarizes projected emissions using the methodologies noted above.

TABLE GHG-2 ESTIMATED OPERATIONAL GHG EMISSIONS

Emission Source	Annual Emissions (Metric tons/year)			
	CO_2	CH_4	N_2O	CO_2e
Operational Emissions				
Area Sources	5	0.0003	0.0001	5
Electricity Use	31	0.0012	0.0003	31
Natural Gas Use	19	0.0004	0.0003	19
Water Use	4	0.0256	0.0006	5
Solid Waste Management	2	0.1058	0.0000	4
Vehicle Emissions	173	0.0092	0.0000	174
Amortized Construction Emissions	25	0.0000	0.0000	25
Total	**259**	**0.1425**	**0.0013**	**263**
Global Warming Potential Factor	1	25	298	--
Total CO_2 Equivalent Emissions				**263**

Source: SRA, 2019b

As shown in Table GHG-2, the total CO_2e emissions from the proposed project would be approximately 263 metric tons per year. The net emissions associated with the proposed project would therefore be below the COV's "bright line" threshold of 1,185 metric tons of CO_2e. Because the emissions are below the screening threshold, impacts would be less than significant, and no further analysis is required.

HORIZON YEARS 2030 AND 2050

As described above, Executive Order B-30-15 established a statewide emissions reduction target of 40 percent below 1990 levels by 2030, which has been implemented by SB 32. This measure was identified to keep the State on a trajectory needed to meet the 2050 goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 pursuant to Executive Order S-3-05. According to most recent 2020 forecast presented in CARB's Updated Scoping Plan and the adopted target for 2020 (i.e., 1990 statewide GHG levels), the state must achieve a reduction of at least 15.3 percent to reach the 2020 target.

Further analyses were conducted to provide information on future GHG emissions in the years 2030 and 2050. Tables GHG-3 and GHG-4 present estimated emissions for 2030 and 2050 for the proposed project. Because there is no information on increases in energy efficiency regulations through Title 24, nor any information on additional plans and programs that may be implemented pursuant to SB 32, Tables GHG-3 and GHG-4 take into account the following additional GHG measures beyond the 2020 analysis:

- Additional penetration of Advanced Clean Cars regulations and increased percentage of electric and low-emission vehicles in the fleet.

- Implementation of the 50 percent Renewable Portfolio Standard by 2030 and meeting the 80 percent Renewable Portfolio Standard by 2050.

TABLE GHG-3 SUMMARY OF ESTIMATED 2030 OPERATIONAL GHG EMISSIONS

Emission Source	Annual Emissions (Metric tons/year)			
	CO_2	CH_4	N_2O	CO_2e
Operational Emissions				
Area Sources	5	0.0003	0.0001	5
Electricity Use	24	0.0009	0.0002	24
Natural Gas Use	19	0.0004	0.0003	19
Water Use	4	0.0256	0.0006	5
Solid Waste Management	2	0.1058	0.0000	4
Vehicle Emissions	134	0.0065	0.0000	134
Amortized Construction Emissions	25	0.0000	0.0000	25
Total	**213**	**0.1395**	**0.0012**	**216**
Global Warming Potential Factor	1	25	265	--
CO_2 Equivalent Emissions				**216**

Source: SRA, 2019b

TABLE GHG-4 SUMMARY OF ESTIMATED 2050 OPERATIONAL GHG EMISSIONS

Emission Source	Annual Emissions (Metric tons/year)			
	CO_2	CH_4	N_2O	CO_2e
Operational Emissions				
Area Sources	5	0.0003	0.0001	5
Electricity Use	12	0.0005	0.0001	12
Natural Gas Use	19	0.0004	0.0003	19
Water Use	2	0.0255	0.0006	3
Solid Waste Management	2	0.1058	0.0000	4
Vehicle Emissions	125	0.0058	0.0000	125
Amortized Construction Emissions	25	0	0	25
Total	**190**	**0.1383**	**0.0011**	**194**
Global Warming Potential Factor	1	28	265	--
CO_2 Equivalent Emissions				**194**

Source: SRA, 2019b

Tables GHG-3 and GHG-4 present the estimated GHG emissions for 2030 and 2050 with these measures in place. Because there is no efficiency metric recommended by the COV beyond 2020, no calculation of the efficiency of the project has been made. However, the emissions from the proposed project would be further reduced in 2030 and 2050 from the 2020 emissions with implementation of the Renewable Portfolio Standard and further reductions in GHGs from vehicles. Therefore, the proposed project would not conflict with the state's goals to reduce GHG emissions.

CONCLUSIONS

Emissions of GHGs were quantified for both construction and operation of the proposed project. The proposed project's net GHG emissions would be below the COV's "bright line" threshold of 1,185 metric tons of CO_2e. Through the mobile source emission regulatory framework, Title 24 energy efficiency requirements, and RPS, emissions will be reduced further for the proposed project to a level that is consistent with the goals of AB 32. Therefore, the proposed project would not result in a cumulatively considerable global climate change impact, and impacts related to GHG emissions would be less than significant.

IX. Hazards and Hazardous Materials *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. 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?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e. For a project located within 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 result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

The discussion below is summarized and based in part on the findings contained within the *Preliminary Site Assessment, Phase I Environmental Site Assessment, 1435 Olive Avenue, Vista, California 92083* (*Phase I Report*) (Christian Wheeler Engineering (CWE) September 9, 2019). The report is on file and available for review in the COV's Planning Division office.

DISCUSSION

a - d. LESS THAN SIGNIFICANT IMPACT. As previously stated in this document, the project site is 4.94 gross acres in size, and is comprised of two parcels that contain an existing single-family home, pool, tennis court and other related structures. Also, on-site along the eastern perimeter of the site is an existing (below ground) SDG&E high pressure natural gas pipeline and associated above ground monitoring infrastructure.

All existing structures on-site are proposed to be demolished and removed as part of project development, with the exception of the SDG&E natural gas-related infrastructure located above and below ground.

According to the *Phase I Report* (CWE, 2019), the site was first developed with the construction of the single-family residence and barn structure over 80 years ago (1939 or before). The residence appears to have been remodeled and expanded in or about 1965. Between the years of 1953 and 1964, the neighboring property to the southwest of the site was developed with a single-family home and the residential lots to the south, north, and east of the subject site were developed between 1979 and 1985. The tennis court and swimming pool on-site were constructed after 1985 and 1994, respectively. The septic system at the site appears to have been upgraded in 1984 and 2002 (CWE, 2019).

The results of the site reconnaissance (CWE, 2019) indicated the presence of multiple above ground stockpiles of miscellaneous trash and debris scattered across the property, as well as several partially full paint, fuel, and hydraulic oil containers on the north side of the existing residence on-site. However, no evidence of buried trash or debris, or evidence of spills from, or improper handling of, the paint, fuel, and hydraulic oil containers was observed during site reconnaissance. The presence of these stockpiles, and paint, fuel, and oil containers, does not indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property (CWE, 2019).

The existing residential development utilizes a septic system. According to the *Phase I Report* (CWE, 2019), effluent disposal at the site is provided by a reported 1,500 gallon septic tank located northwest of the existing barn, and 300 feet of leach lines located to the north of the septic tank (100-foot setback from the descending slope along the northern perimeter of the site). However, no evidence of any site and septic system usage other than residential use was detected during research efforts and site reconnaissance.

According to the *Phase I Report* (CWE, 2019), the existing SDG&E high pressure gas line is located within an easement along the east side of the site. Monitoring of the gas line is provided by a fenced above-ground equipment station located within the easement near the front of the property. Natural gas is a vapor at standard temperature and pressure (STP) and is not known to contaminate soils or groundwater. The presence of the gas line, although important when considering overall site and neighborhood safety, does not indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property (CWE, 2019).

Typically, residential uses do not generate, store, dispose of, or transport quantities of hazardous substances. Likewise, construction equipment that would be used to build the proposed project also has the potential to release relatively small amounts of oils, greases, solvents, and other finishing materials through accidental spills. While the release of any of these materials could have the potential to impact surrounding land uses, a release of a significant amount of these hazardous substances is not likely due to the relatively small amount of material that would be stored or used on-site.

Nevertheless, federal, State, and local regulations would be in effect to reduce the effects of such potential hazardous materials spills. In addition, the VFD enforces city, State, and federal hazardous materials regulations for the COV through plan check reviews of Tentative Subdivision Maps, Site Development Plans, Building Plans, etc. The COV's Uniform Fire Code (Chapter 16.40 of the Municipal Code) adopts the State of California's Fire Code, which includes regulations concerning hazardous materials spill mitigation, and containment and securing of hazardous materials containers to prevent spills. In addition, the State Fire Marshall enforces oil and gas pipeline safety regulations, and the federal government enforces hazardous materials transport pursuant to its interstate commerce regulation authority. Compliance with all of these requirements is mandatory as standard permitting conditions during plan reviews and inspections of completed projects and would minimize the potential for the accidental release or upset of the noted hazardous materials, thus ensuring public safety.

The closest existing public school to the project site is Grapevine Elementary located approximately 0.40 miles away to the south on Grapevine Road. As stated above, neither construction nor operation of the proposed project would result in a release of any significant amounts of hazardous substances that could cause a public health hazard to this school, which is located over one-quarter mile away.

In summary, compliance with the above referenced code requirements and regulations would result in less than significant impacts.

According to the *Phase I Report* (CWE, 2019), the site was previously identified on the Department of Toxic Substances Control (DTSC) as a Clandestine Drug Lab (CDL) site in connection with the discovery of a marijuana growing and "Honey Oil" extraction laboratory on May 13, 2015 (CWE, 2019). However, the *Phase I Report* also notes that based on a review of available records, discussions with County Department of Environmental Health (DEH) personnel, media reports, and interview with site occupants, the actual location of the discovered drug laboratory was at the adjacent residential lot located at 1439 Olive Avenue (APN 162-493-24-00) (CWE, 2019).

The *Phase I Report* notes that records indicate the presence of several close-proximity (one-mile radius) businesses or operations that are identified as using, storing, generating, or discharging of hazardous materials. Based on the expected materials used at the site and close-proximity sites, current governmental regulations regarding the use of hazardous materials, the stratigraphic conditions, drainage gradients and elevations, the probability of significant on-site contamination from these off-site sources should be considered to be low (CWE, 2019).

According to the *Phase I Report* (CWE, 2019) federal, State and local environmental databases were reviewed by Environmental Data Resources Inc. for information pertaining to documented and/or suspected releases of regulated hazardous substances and/or petroleum products within specified search distances, including the Cortese List database.

e – g. No Impact.

As stated in the Surrounding Land Use section in Chapter 2 of this document, the Oceanside Municipal Airport is located approximately five miles to the west-northwest; however, the site is not located within the vicinity of a private airstrip. According to the *Oceanside Municipal Airport Land Use Compatibility Plan* (San Diego County Regional Airport Authority, adopted 2010), the proposed project site is not located within a safety hazard area. Therefore, implementation of the proposed project would not result in a safety hazard for people residing at the project site.

The proposed project would not impair or physically impact any adopted emergency response plan or evacuation plan. The proposed project would not require the closure of any public or private streets or roadways and would not impede access of emergency vehicles to the project site or any surrounding areas. Several of the existing homes located to the west of the site would have new (replacement) driveway access provided to their homes from the new private street that will serve the new 15 home subdivision.

The project has been reviewed by the VFD, and it would provide all required emergency access in accordance with the requirements of the Department. Therefore, significant impacts to emergency response are not anticipated to occur.

The project site is not located within a Very High Fire Severity Zone; therefore, the proposed project would not be subject to defensible space requirements of the California Fire Code. In addition, future homes built on the site would not be subject to the building construction requirements of the Fire Code. Accordingly, no significant risk of loss, injury or death would arise to people or structures from wildland fires where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

X. Hydrology and Water Quality *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. 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:	☐	☐	☒	☐
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
(iii) 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	☐	☐	☒	☐
(iv) impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

The discussion below is summarized and based on the findings contained within the *Drainage Study* for Olive Avenue PC17-0388 (*Drainage Report*) and the *Storm Water Quality Management Plan* (*SWQMP*) both by BHA, Inc. (BHA) April 4, 2018a and December 20, 2018b, respectively, which were prepared for the proposed project. The reports are on file and available for review in the COV's Planning Division office.

DISCUSSION

a - e. LESS THAN SIGNIFICANT IMPACT. Hydrologically, the drainage of the site is divided by a ridge line. This ridge divides the site into two separate basins; Basin A slopes to the north where runoff flows to the Loma Alta Hydrologic Area (HA) (904.10), and Basin B slopes to the southeast to the Buena Vista Creek HA (904.21) within the Carlsbad Hydrologic Unit (HU) (904.0). The receiving water bodies for the proposed project include Loma Alta Creek, located 0.3 mile to the north of the property, and Buena Vista Creek located 0.9 mile to the south of the property. Loma Alta Creek is on the 2010 303(d) list for impaired water bodies due to Selenium and Toxicity. Buena Vista Creek is also on the 303(d) list due to Selenium and Sediment Toxicity.

POLLUTANTS OF CONCERN AND HYDROLOGIC CONDITIONS OF CONCERN

According to the *SWQMP* (BHA, 2018b) the primary pollutants of concern that could be generated by the development of the proposed project consist of pesticides and sediment. Secondary pollutants of concern include nutrients, heavy metals, organic compounds, trash and debris, oxygen demanding substances, oil and grease, and bacteria and viruses. As stated in the *SWQMP* (BHA, 2018b) potential hydrologic conditions of concerns have to do with impacts to the hydrologic regime resulting from development. This typically includes increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; faster time to reach peak flow; and water quality degradation. Specifically, a change to the hydrologic regime of a priority project site is considered a condition of concern if the change impacts downstream channels and habitat integrity. However, significant impacts on downstream channels and habitat integrity due to development of the project site are not anticipated.

POTENTIAL WATER QUALITY IMPACTS

As previously noted, the applicant seeks approval of Annexation into the city and a Tentative Subdivision Map to subdivide a two parcel, 4.94-acre site into fifteen lots for a single-family residential development. The project also proposes drainage improvements consisting of concrete ditches, storm drainpipes, catch basins, and two (2) biofiltration basins (Lots A and B) to maintain the pre-developed runoff characteristics. The future owners of the residential lots (Lots 1-15) may be responsible for further storm water mitigation on a lot by lot basis.

According to the *SWQMP* (BHA, 2018b), BMPs would be implemented during construction and post-construction activities to address potential water quality impacts due to project development. Selected BMPs from the COV's *BMP Design Manual (2016)* would be applied to reduce pollutants to maximum levels (see Table HWQ-1 for Post-Construction BMPs incorporated into the project's design).

CONSTRUCTION ACTIVITIES

Short-term erosion impacts during the construction phase of the project would be prevented through implementation of an erosion control plan. A grading and erosion control plan, and a SWPPP, is required in accordance with the COV's *Grading Ordinance* (Development Code Chapter 17.56) and the current NPDES General Construction Activities Permit, and must be submitted for plan check and approval by the City Engineer, as well as the Planning Division, prior to final approval of the project. The erosion control plan would include construction BMPs such as:

- Silt Fence, Fiber Rolls, or Gravel Bag
- Street Sweeping and Vacuuming

- Storm Drain Inlet Protection
- Stabilized Construction Entrance/Exit
- Vehicle and Equipment Maintenance, Cleaning, and Fueling
- Hydroseeding
- Material Delivery and Storage
- Stockpile Management
- Spill Prevention and Control
- Solid Waste Management
- Concrete Waste Management

In addition, in accordance with the requirements of the most recent NPDES General Construction Activities Permit, a Notice of Intent filed with the SWRCB and preparation of a SWPPP would also be required before project construction commences.

POST-CONSTRUCTION ACTIVITIES

In accordance with the COV's *BMP Design Manual (2016)* , as detailed in the COV's *Stormwater Standards Manual* (Municipal Code Chapter 13.18, Stormwater Management and Discharge Control Program) and the requirements of the Municipal Separate Storm Sewer System (MS4) (San Diego RWQCB Order R9-2013-0001 as amended by R9-2015-001 and R9 2015-0100), all new and significant redevelopment projects that are categorized as "priority" development projects (PDP) are required to incorporate post-construction (or permanent) Low Impact development (LID) Site Design, Source Control, and Treatment Control (Structural) BMPs, and Hydromodification measures into the project's design. The proposed project meets one of the "priority project" categories – create, add, or replace at least 5,000 sq. ft. or greater of impervious surface on an existing development; therefore, the proposed project is classified as a priority project.

Under post-development conditions, the impervious surface from the proposed project would consist of 2.08 acres of the site (90,791 sq. ft.) of impervious surfaces, which would be due to the addition of the private street, 15 driveways, and the sidewalk along Olive Avenue. As a result, the project site would consist of 40 percent of impervious surfaces; however, this would not include the 15 future homes that would eventually be built on the site.

TYPES OF POST-CONSTRUCTION BMPS

LID Site Design BMPs are intended to minimize impervious surfaces and promote infiltration and evaporation of runoff before it can leave the location of origination by mimicking the natural hydrologic function of the site. Integrated Management Practices (IMPs) facilities are used in conjunction with LID BMPs as they provide small-scale treatment, retention, and/or detention that are integrated into site layout, landscaping and drainage design. Source Control BMPs are intended to minimize, to the maximum extent practicable, the introduction of pollutants and conditions of concern that may result in significant impacts generated from site runoff to off-site drain systems. Treatment Control BMPs are intended to treat storm water runoff before it discharges off-site. According to the COV's *Stormwater Standards Manual* (2015), specific localized treatment control BMPs are more effective at reducing or minimizing pollutants of concern than other types of BMPs. Each type of BMP that would be implemented is shown in Table HWQ-1, below.

TABLE HWQ-1 PROPOSED PROJECT BMPS

Type of BMP	Description of BMP
LID Site Design	**Maintain Natural Drainage Pathways and Hydrologic Features:** Existing drainage patterns and historical points of discharge will be maintained.

Type of BMP	Description of BMP
	Conserve Natural Areas, Soils and Vegetation: Natural areas located along the eastern project boundary will be preserved. Soil disturbance is minimized where feasible.
	Minimize Impervious Areas: Streets and sidewalks will be constructed to the minimum widths necessary. Shared driveways are also implemented where possible.
	Minimize Soil Compaction: Soil compaction will be minimized in natural landscape areas. Disturbed slope soils will also be amended and aerated.
	Runoff Collection: Landscape will effectively receive and infiltrate and treat runoff from impervious areas as much as possible. Roof drains will be directed to landscape areas prior to discharging to storm water conveyance
	Landscaping with Native or Drought Tolerant Species: Slope soils will be amended, aerated, and planted with native or drought tolerant non-native plants. Other landscape or pervious areas will incorporate native or drought tolerant landscape design.
Source Control	**Landscape/Outdoor Pesticide Use:** The landscaping is designed to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to storm water pollution. It is intended to preserve existing native trees, shrubs and ground cover to the maximum extent possible.
	Prevent Illicit Discharges into the MS4: Provide educational materials to prevent illicit discharges as a component of the Operation and Maintenance Plan (O&M Plan).
	Storm Drain Stenciling or Signage: Storm drain inlets and catch basins will be labeled with "No Dumping Drains to Waterways".
	Driveways and Sidewalks: Driveways and sidewalks would be swept regularly to prevent the accumulation of litter and debris. Debris from pressure washing is intended be collected to prevent entry into the storm drain system. Wash water containing any cleaning agent or degreaser would be collected and discharged to the sanitary sewer and not discharged to a storm drain.
	Additional BMPs Based on Potential Sources of Runoff Pollutants: Irrigation systems will be designed for the specific water requirements of each landscape area. Landscaping will be designed to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to storm water pollution. Flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines will be used. Water conservation educational materials will also be provided for future occupants.
Treatment Control	**Bioretention Basin with Hydromodification Capacity:** Two Bioretention Basins with Hydromodification Capacity of various sizes would be constructed on Lots and B. They would serve as Treatment Control BMPs and IMPs.

Source: SWQMP (BHA, 2018b)

Prior to designing LID and/or Treatment Control BMPs into the proposed project, the Drainage Management Areas (DMAs) for the project site were defined.[15] The proposed drainage pattern will be similar to the existing drainage pattern with some modifications to incorporate the BMPs into the project design to mimic the impacts on storm water runoff and quality. The proposed runoff from the project site is divided into six (6) DMAs: two (2) Areas Draining to Biofiltration IMPs, one (1) Area into a curb inlet for treatment only, and three (3) Self-Mitigating DMAs.

15 DMAs are areas delineated on a map of the development site showing how drainage is detained, dispersed, or directed to Integrated Management Practices.

DMA-1 encompasses Lots 1-5, Lot 14, and a portion of the proposed private street. Roof runoff from the proposed residences will be discharged to landscape areas and yard swales, which will be gently sloped to direct runoff to the proposed private street. The private street will include curb and gutter which will direct flow south to a proposed concrete ditch. Street curb and gutter will convey flow to Biofiltration Basin A, located at the northeastern curb return of Olive Avenue and the proposed private street. Storm water that enters the biofiltration basin will be filtered through the soil media and directed to a perforated underdrain pipe located at the bottom of the basin. Outflows from the basin will discharge into a proposed storm drainpipe, which will connect to the existing storm drain system underneath Olive Avenue. The existing storm drain line will act as POC-1. From POC-1 the storm drain line travels underneath Olive Avenue which empties into a tributary of Buena Vista Creek.

DMA-1A will also include offsite runoff from the existing single-family developments located south of Lot 14. Although it is ideal to bypass offsite areas around structural BMPs, rerouting measures were found to be infeasible. DMA 1B includes areas not feasible to drain into Basin A, therefore these flows will be intercepted by a curb inlet with a Bioclean Media Filter for pollutant control treatment only. Biofiltration Basin A has been sized to mitigate (hydromodify) the additional runoff from the existing developments and DMA 1B.

Runoff from the graded slope along the easterly and southerly project boundary and will flow directly offsite. These areas do not include any new impervious surfaces and are considered a Self-Mitigating DMAs (SM-1 and SM-2) per Chapter 5 Section 5.2.1 of the COV's *BMP Design Manual* (2016). Flows from SM-1 and SM-2 will travel southeast towards POC-1.

There is one De Minimis Area, DM-1A, which is not feasible to drain to the biofiltration basin or treat for pollutant control. This area includes 931 sq. ft., significantly bigger than the suggested 250 sq. ft. in the *BMP Design Manual* (2016), but less than 2 percent of the total added or replaced impervious surface of the project. The De Minimis area is located at the proposed street intersection of Olive Avenue and the Private Street, downstream of a curb inlet with a Bioclean Media Filter. The De Minimis Area is 15 feet wide and 66 feet long and includes areas of the proposed of the curb returns with pedestrian ramps. Relocating the upstream curb inlet within the curb return is not desirable for pedestrian accessible improvements. Placing street trees (for pollutant control) in the close proximity to the curb returns would encroach within the street intersection sight distance.

DMA-2 encompasses Lots 6-15 and the extension of the driveways. Roof runoff from the proposed residences from Lots 6-9 and Lot 13 will be discharged to landscape areas and yard swales, which will be gently sloped to direct runoff towards the proposed the private street cul-de-sac. A storm drain will intercept the runoff and convey the flow to Biofiltration Basin B, located near the northwesterly corner of the project boundary. The remaining Lots 10-12 and Lot 15 will drain into Basin B via a private storm drain system. Storm The project as proposed will endeavor to maintain the existing cross lot drainage condition for both overall rate, and flow condition. Biofiltration basins are proposed for the two (2) main Drainage Basins A and B so that increases in the drainage discharge rate and velocity will be mitigated up the 100-year runoff in accordance with hydromodification management requirements. The flow control facilities have been designed using continuous simulation hydrologic modeling presented in Appendix G of the COV *BMP Design Manual* (2016).

In this case, SWMM models were prepared for pre-development and post-project conditions, and post-project water that enters the biofiltration basin will be filtered through the soil media and directed to a perforated underdrain pipe located at the bottom of the basin. Outflows from the basin will discharge into a proposed storm drainpipe, which will outlet at the existing brow ditch along the westerly project boundary. The existing brow ditch will flow north to the northwestern corner of the project site at POC-2. From POC-2 the brow ditch travels west and empties into a tributary of Loma Alta Creek.

Runoff from the landscaped slopes along the westerly, northerly, and a portion of the easterly project boundary will be intercepted by the existing brow ditch system. The brow ditches will direct flow around the proposed development and to the existing point of discharge at POC-2. This area is considered a Self-Mitigating DMA (SM-2) per Chapter 5, Section 5.2.1 of the 2016 *Vista BMP Design Manual*. All of the Bioretention Basins would include Hydromodification Capacity, with the size of each designed according to the County of San Diego SUSMP Bioretention with Hydromodification sizing tables.

According to the *SWQMP* (BHA, 2018b), the site of the proposed project is situated on gently steep sloping land with C and D type underlying soils. The proposed lots would be 10,000 sq. ft. or larger, which provides an opportunity to treat the impervious areas within the originating lot. The best and most effective Treatment Control BMP was determined to be a Bioretention Basin. A Bioretention Basin has a high effectiveness rating for coarse sediment, and pollutants that tend to associate with fine particles. They have a medium effectiveness rating with pollutants that tend to be dissolved following treatment. Bioretention Basins, when sized using either the continuous modeling software Hydrological Simulation Program - FORTRAN or using the County's SUSMP sizing tables for Bioretention Basins with Hydromodification, provide a very effective treatment and detention basin to serve as an all-around IMP. This is the Treatment Control BMP/IMP system that is proposed for this project.

HYDROLOGY/DRAINAGE IMPACTS

Groundwater was not encountered during subsurface investigations undertaken for the *Geotechnical Report* (CWE, 2017) and is expected to more than 20 feet below the ground surface. Consequently, significant impacts to groundwater resources are not anticipated with development of the project.

Under existing (or pre-developed) conditions approximately 11 percent of the site is impervious (0.31 acre), with the remaining 89 percent made up of pervious landscaped areas (BHA, 2018a). A drainage divide runs through the center of the project site and separates the Loma Alta and Buena Vista Creek Hydrologic Areas. The ridge line divides the site into two separate basins, Basin A and Basin B, and the property slopes generally north and southeast from the ridge. Runoff from Basin A flows southeast to Buena Vista Creek and runoff from Basin B flows north to Loma Alta Creek then outfalls into the Loma Alta Slough and the Pacific Ocean.

In the existing condition, runoff sheet flows in two different directions from the center of the property. Runoff that flows southeast from the center of the property travels towards Olive Avenue until discharging onto the paved road. The existing drainage basin includes run-on from the existing residential developments located west of the property. All drainage from Basin A enters into a tributary Buena Vista Creek where it outfalls into Buena Vista Lagoon and the Pacific Ocean.

Runoff from the existing single-family residence flows north away from Olive Avenue, downhill towards the northerly boundary of the subject property. Ultimately, storm flows cross said northerly property line and flow into an existing brow ditch that travels westerly across the adjacent developed land. Drainage from Basin B enters into a tributary of Loma Alta Creek.

Under the proposed (or post-developed) conditions, the project would increase the impervious surfaces of the site to 40 percent due to the anticipated construction of the private street, residential driveways, and sidewalks, curb and gutters.

The 100-year storm water discharge rate under (undetained) post-development conditions is estimated at 14.34 CFS. The 100-year storm water discharge rate under (detained) post-development conditions is estimated at 10.79 CFS which matches the existing (pre-developed) condition. According to the *SWQMP* (BHA, 2018b), the drainage plan for the proposed development would not significantly alter the existing on-site flow patterns. The proposed storm drain system would be composed of concrete ditches, storm drainpipes, catch basins, and (2) biofiltration basins to maintain the pre-developed runoff characteristics.

The implementation of all proposed construction and post-construction BMPs would reduce, to the maximum extent feasible, all expected pollutants of concern and other anticipated pollutants. Therefore, development of the proposed project would have a less than significant impact on water quality standards or waste discharge requirements.

FLOOD HAZARD, TSUNAMI AND SEICHE IMPACTS

The project site is not identified in the County's *Zoning and Property Information Tool* website (2015), Vista's *GP 2030* (adopted 2012), or on the COV's GIS map as an area within a 100- year flood plain. Development of the project site would not affect any area mapped as a flood hazard zone by the Federal Emergency Management Agency, or within a flood control basin or a potential inundation area. In addition, the site does not have the potential to produce mudflows due to the relatively flat and moderately sloped topography of the site, and it is not in proximity to the ocean or other water bodies to be affected by a tsunami or seiche. Consequently, significant impacts would not occur.

WATER QUALITY CONTROL PLAN AND GROUNDWATER MANAGEMENT PLAN IMPACTS

As discussed above, Bioretention Basins were selected as the treatment control BMP because of their effectiveness at treating sediment, trash and fine particles. Two Bioretention Basins would be installed during the initial construction phase of the development; designated as Lots A and B. The size of each basin is determined by various hydrologic model calculations that include detention volume for a 100-year storm event, drainage area contribution, and LID BMP requirements (i.e., four percent of the impervious area being removed and replaced or added). In addition, because the proposed project would increase both the impervious area and the discharge rate from pre-developed conditions (a 3.55 CFS increase), both basins are required to include Hydromodification Management Plan (HMP) sizing requirements (in this case increasing the storage volume of each basin). Therefore, with detention (i.e., Bioretention Basins A and B) the 100-year storm water discharge rate for the site would be 10.79 CFS. As a result, the proposed project would result in less than significant impacts to the capacity of existing or planned storm water drainage systems, or in providing substantial additional sources of polluted runoff or degrading water quality.

Groundwater was not encountered during subsurface investigations undertaken for the *Geotechnical Report* (CWE, 2017), and is expected to more than 20 feet below the ground surface. Consequently, significant impacts to groundwater resources are not anticipated with development of the project.

XI. Land Use and Planning *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. 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?	☐	☐	☒	☐

DISCUSSION

a. NO IMPACT. The project site is 4.94 acres in size and is comprised of two parcels (APN: 162-493-30 and 162-493-31) that contains an existing single-family home and auxiliary structures on-site. The proposed Olive Avenue TSM/ANX project involves the approval of an Annexation Request into the city of Vista, a General Plan Amendment, a Zone Change, and a Tentative Subdivision Map to grade and construct building pads, a private street, driveways, install wet and dry utilities, and install landscaping for a 15-lot residential subdivision. Fifteen new homes are anticipated to be built on-site in the future.

Immediately surrounding land uses consist primarily of single-family residences to the north and west within Oceanside, and west-southwest, south, and east in Vista (see Figure 2, Surrounding Land Uses in Attachment A).

Land uses surrounding the subject property, including their respective General Plan land use and Zoning designations, are found below in Table LU-1.

TABLE LU-1 SURROUNDING LAND USES

Direction	Land Use	General Plan Land Use Designation	Zoning Designation
North	Single-family residential	Estate B Residential (EB-R) **	Residential Estate B (RE-B) **
South	Single-family residential (across Olive Avenue)	Medium Low Density Residential (MLD) *	Single-Family Residential (R-1) *
East	Single-family residential	Medium Low Density Residential (MLD) *	Single Family Residential (R-1) *
West	Single-family residential	Estate B Residential (EB-R) ** Medium Low Density Residential (MLD) *	Residential Estate B (RE-B) ** Single Family Residential (R-1) *

Source: City of Vista GIS, 2019; City of Oceanside GIS Based Zoning and Land Use Maps, 2019

*Notes: * = City of Vista; ** = City of Oceanside*

As indicated in Table LU-1, existing land use and zoning designations to the west-southwest, south and east within the city of Vista are similar to the proposed designations of the project.

With approval of the above-noted discretionary permits, the proposed project would not disrupt or divide the physical arrangement of the community.

b. LESS THAN SIGNIFICANT IMPACT. The proposed project's consistency with *GP 2030* (adopted 2012), the Zoning Ordinance, and other land use plans and policies, and the surrounding land uses is discussed below.

GENERAL PLAN 2030 UPDATE

Land Use and Community Identity Element

As stated in Chapter 2, the project site is currently designated as VR 4.3 in the County's General Plan (adopted 2011) and is zoned as A70 in the County's Zoning Ordinance. However, it is within the COV's Sphere of Influence where it concurrently has a RR land use designation under the *GP 2030* (adopted 2012). The project applicant seeks a General Plan Amendment to change the existing general plan land use designation from RR to MLD. The goals and policies that apply to the proposed project are found in Table LU-2, below:

TABLE LU-2 CONSISTENCY WITH POLICIES IN THE LUCI ELEMENT OF THE GP 2030 UPDATE

LUCI Goals & Policies	Project Description	Consistent (Y/N)?
GOAL 1: Increase the level of design quality and preserve and enhance Vista's identity and image.		
Policy 1.1: Require the application of the *City of Vista Design Guidelines*, including site design, architecture, lighting, and signage, when reviewing and approving new development and redevelopment.	As described in the Proposed Project Description and shown in Figures 4 and 5, the site design and landscape architecture meets or exceeds all design guidelines and standards.	Y
Policy 1.5: Require public and /or private landscaping along all arterial roadways to: minimize the visual dominance of paved surfaces; create more appropriately defined and human-scaled public places; help distinguish spaces designated for pedestrian and non-motorized use from those designated for vehicular travel and parking; and provide environmental benefits, such as absorbing carbon dioxide, helping manage stormwater, and shading to reduce heat island effects. Preference shall be given to native or drought tolerant landscape species.	Landscaping would be provided along Olive Avenue as shown in Figure 5, Landscape Concept Plan in Attachment A. The landscaping is designed to provide environmental benefits as well as help to visually incorporate the project within the surrounding neighborhood. All of the planned plantings would require moderate, low, or very low water use.	Y
Policy 1.6: Encourage undergrounding of utilities and discourage new electric and communications lines to be added to existing aboveground utility systems.	All existing overhead electric lines that are located on or adjacent to the project site would be placed underground, as feasible. All new electric and communication lines that serve the project would be placed underground.	Y
GOAL 2: Preserve and enhance the characteristics and features of neighborhoods that share common development patterns, topography, major streets, and zoning patterns.		
Policy 2.1: Maintain the existing residential character of Vista, characterized by large- lot single-family residential development, by encouraging land uses and intensities of development that are consistent with this image.	The project proposes 15 single-family residential lots that would be consistent with the proposed R-1 designation of the subject property and would be consistent with development patterns in the area.	Y

LUCI Goals & Policies	Project Description	Consistent (Y/N)?
Policy 2.4: Discourage subdivision design that disrupts the existing development pattern within established neighborhoods.	The proposed project would be constructed on a partially developed and partially vacant, undeveloped site. Re-development of the site with 15 single-family lots would be consistent with the pattern of surrounding, established developments.	Y
GOAL 3: Preserve and protect existing residential neighborhoods from actions, activities, or land uses that may have an adverse impact upon the enjoyment of the residential living environment.		
Policy 3.1: Require all new development to be designed to minimize impacts on adjoining residential neighborhoods.	The proposed development would provide setbacks ranging from approximately 10 to 50 feet from the pads to adjacent residential properties to the east, west, and north. Olive Avenue is adjacent to the southern property line. Furthermore, the project would provide an eight-foot high, plantable retaining wall along the northern property line to shield the project site from adjoining residential properties to the north. Landscaping of all of the slopes on the site, as well as along the project's frontage on Olive Avenue would also help integrate the project into the visual pattern of the surrounding neighborhood.	Y
Policy 3.2: Mitigate unacceptable levels of noise, odors, pollution, dust, light, and glare upon residential areas and other sensitive receptors, such as schools and day care centers.	The project's Mitigated Negative Declaration (MND) provides avoidance or mitigation measures to ensure that all impacts are reduced to less than significant levels.	Y
Policy 3.3: Require visual and acoustic buffering between non–residential and residential land uses and other sensitive receptors by employing techniques such as landscaping, setbacks, sound walls, and sensitive siting of buildings.	Although the proposed residential development would not be sited next to non-residential land uses, the project would provide setbacks, retaining walls (north property line), and extensive landscaping as noted in description regarding Policy 3.1 above.	Y
Policy 3.4: Require adequate off-street parking for all residential development.	Each home that would eventually be built in the development is expected to have a driveway and two-car garage, which would meet the off-street parking standards for single-family dwelling units.	Y
GOAL 4: Promote sustainable and smart growth land use patterns and development regulations and guidelines.		
Policy 4.9: Ensure that new development complies with the California Green Building Standards Code (the CALGreen Code) to promote sustainable design and construction practices and positive environmental impacts in planning and design, energy efficiency, water efficiency and conservation, and material conservation and resource efficiency.	The project is conditioned to comply with all applicable building codes and standards (which includes application sections of the CALGreen Code) in affect at the time of construction. Also, each home that would eventually be built in the development would be required to comply with all applicable building codes and standards in affect at the time of construction, including the CALGreen Code.	Y
GOAL 13: Ensure that annexation of property within Vista's SOI occurs in a manner that protects the existing character of the areas and is consistent with the planned land use for these areas.		

LUCI Goals & Policies	Project Description	Consistent (Y/N)?
Policy 13.1: Encourage annexations of islands or pockets of unincorporated land that are designated as low density, rural residential, open space, commercial, or industrial while ensuring that these potential annexation areas are fully accessible via city streets.	The project site is readily accessed from Olive Avenue, and is currently designated as VR 4.3 in the County's General Plan, and is zoned as A70 in the County's Zoning Ordinance. It is within the COV's Sphere of Influence, and has a concurrent Rural Residential (RR) land use designation. With approval of the General Plan Amendment, the general plan land use designation would be MLD.	Y
Policy 13.5: All infrastructure, including sewer mains, local and collector street improvements, and utility connections needed to serve development tied to an annexation shall be the responsibility of the applicant. Improvements to offsite roads serving an annexation shall be required as necessary to meet City standards or provide the needed capacity for all travel modes to adequately serve the annexed area.	As shown on Figure 4, Proposed Lot and Grading Plan in Attachment A, the design of the proposed project would provide 15 residential lots with a minimum 10,000 sq. ft., which would be accessed from Olive Avenue and connected to existing wastewater, water, and storm drain systems in Vista.	Y

As shown in Table LU-2, the proposed development would be consistent and compatible with the Land Use and Community Identity Element of *GP 2030* (adopted 2012). As a result, the project would result in less than significant impacts.

Circulation Element

The property is located at 1435 Olive Avenue, on the north side of the street between Winter Road (Oceanside) to the west and Granada Drive (Vista) to the east. Olive Avenue is designated as a 4-Lane Collector (undivided) in the Vista Circulation Element of *GP 2030* (adopted 2012) and has an 84-foot wide ROW that is improved with a 64-foot wide curb-to-curb pavement section centered within the ROW. It is presently configured as a two-lane roadway with a continuous left-turn lane, striped bike lanes, and parking on each side of the road from Ruby Road east past the project site until Cielita Linda Road. According to the COV's most recent Average Daily Traffic (ADT) Map (2017), the ADT volume eastbound on Olive Avenue between the intersections with N. Emerald Drive and N. Melrose Drive is 4,899; westbound on the same road segment the ADT is 4,148, for a total ADT of 9,047.[16]

As discussed in the Transportation/Traffic section of this IS/MND, the Level of Service (LOS) at the nearest intersection to the project site identified in the *GP 2030 PEIR* (certified 2012) (N. Emerald Drive/Olive Avenue) was estimated to be LOS E for a.m. peak hours (which was determined to be a significant impact), and LOS D for p.m. peak hours under GP 2030 Conditions. Further, this section of the *GP 2030 PEIR* (certified 2012) stated that any discretionary project that contributed vehicle trips to the intersection of N. Emerald Drive/Olive Avenue during the a.m. peak hours would contribute to the significant impact at the intersection; therefore, requiring mitigation. Because the proposed Olive Avenue TSM/ANX project would contribute vehicle trips to the intersection of N. Emerald Drive/Olive Avenue during this peak hour time, the project applicant would be required to implement Mitigation Measure TT-1. As a result, the proposed project would be compatible and consistent with the Circulation Element of the *GP 2030* (adopted 2012).

16 In the Traffic and Circulation section of the GP 2030 PEIR (certified 2012), the anticipated total ADT under GP 2030 Conditions was 13,900.

Housing Element

As mentioned above, the proposed project includes approval of a Tentative Subdivision Map to grade and construct building pads, a private street, driveways, and install wet and dry utilities for a 15-lot residential development. The existing home would be demolished but replaced within the proposed subdivision, albeit on a smaller parcel. All fifteen new homes are anticipated to be built within 24 months.

The proposed project meets or is compatible with two goals of the Housing Element: Goal 1.0 - Maintain and Enhance the Quality of Residential Neighborhoods in Vista, and Conserve the Existing Supply of Affordable Housing; and Goal 2.0 - Encourage Adequate Provision of a Wide Range of Housing by Location, Type of Unit, and Price to Meet the Existing and Future Needs of Vista Residents. By replacing lost housing on-site with the new 15-unit residential community, the proposed project is compatible with Goal 1.0. With the subdivision of the property into a total of 15 lots, 15 future homes would be provided where there was initially only one home. Therefore, the proposed project would be compatible with the Housing Element of *GP 2030* (adopted 2012), and significant impacts would not occur.

Resource Conservation and Sustainability Element

The applicable goals and policies that apply to the proposed project are as follows:

RCS Goal 2 Reduce GHG emissions from community activities and municipal facilities and operations within the city boundaries to support the State's efforts under Assembly Bill 32, Senate Bill 375, and other state and federal mandates, and to mitigate the community's contributions to global climate change.

RCS Policy 2.7 Through California Environmental Quality Act (CEQA) documents, evaluate and disclose the contribution new projects could have on climate change and require mitigation measures as appropriate.

RCS Goal 4 Preserve, protect, and enhance water quality in watersheds to which the City contributes storm water and urban runoff.

RCS Policy 4.6 Require the incorporation of Low Impact Development (LID) techniques in accordance with current storm water regulations to manage storm water and urban runoff, reduce runoff and pollution, reduce the footprint of development on each parcel, and assist in maintaining or restoring the natural hydrology of the site.

RCS Goal 12 Acknowledge, preserve, and protect the City's Native American heritage.

RCS Policy 12.2 In collaboration with NAHC and the San Luis Rey Band of Mission Indians, adopt procedures for protecting significant archeological features, and apply to projects requiring discretionary City approval.

RCS Policy 12.3 Ensure that the San Luis Rey Band of Mission Indians is notified of any proposed discretionary planning or grading applications affecting lands with potential archaeological resources.

The proposed project meets RCS Policy 2.7 and Goal 2 through the GHG Emissions analysis prepared in Section VIII, Greenhouse Gas Emission in this CEQA document. As described in Section X, Hydrology and Water Quality of this document, the design of the proposed project incorporates a number of LID techniques and facilities that meets RCS Policy 4.6 and Goal 4. As described in Section V, Cultural Resources, representatives of the San Luis Rey Band took part in on-site field surveys conducted as part of the preparation of the cultural resources report and contributed to the procedures for protecting known and unknown significant archeological features (RCS Policies 12.3 and 12.2). Therefore, implementation of the proposed project would be consistent with the goals and policies of the RCS Element of the City's General Plan, and impacts would be less than significant. Other General Plan Elements

The proposed project would be conditioned to comply with all applicable noise standards and required mitigation measures, would be adequately served by existing public services, and would require compliance with the COV's building, and fire codes and with the seismic regulations within the CBC. The 4.94-acre project site does not contain any designated open space. Consequently, no inconsistencies with the COV's Noise Element, Public Safety Element, and Healthy Vista Elements are anticipated as a result of project implementation, and significant impacts would not occur.

Habitat Conservation Plan or Natural Community Preservation Plan

The City is part of the North County Multiple Habitat Conservation Program (MHCP), which is a comprehensive conservation planning process developed to identify and protect critical habitats for a wide range of plant and animal species within a 20,000-acre preserve system in North San Diego County. However, the City has not yet adopted an MHCP sub-area plan. Instead, to implement the provisions of the MHCP within Vista, a Biological Preserve Overlay (BPO) has been created and identified as the City's regional habitat preservation system in the *GP 2030 Update*. The project site is not within or adjacent to any land that has a BPO designation. Therefore, the development of the proposed project would not conflict with the provisions of the MHCP, and impacts related to the MHCP would not occur.

ZONING ORDINANCE

As stated above, the applicant seeks a Zone Change from A70 in the County's Zoning Ordinance to an R-1 zoning designation under the COV's Zoning Ordinance. Section 18.28 of the Development Code identifies the requirements for permitted uses; building heights; front, side and rear yard setbacks; lot coverage; and utilities under the R-1 designation. The proposed 15 single-family lots with sizes ranging from 10,015 to 12,502 sq. ft. (net) would meet the requirements for the permitted use of a single-family home on a minimum 10,000 sq. ft. lot size, as well as the building site area. The yard setbacks, building heights, lot coverage, and utilities meet and, in some cases, exceed the following minimum requirements:

Yard Setbacks

Front - 50 feet from the centerline of the street upon which the building site fronts (Olive Avenue).

Sides - not less than 10 feet in width.

Rear - not less than 10 feet in depth.

Building Height

No building or structure shall exceed two stories or 35 feet in height, whichever is the lesser.

Lot Coverage

All main buildings, accessory buildings and structures (e.g., garages), and areas used for driveways, parking spaces, etc. shall not cover more than 60 percent of the lot.

Utilities

All electrical and communication conduit and outdoor conductor service facilities shall be installed underground within the boundaries of any lot or building site for which a building permit for a single-family dwelling is requested.

As discussed in various sections of this document, although the proposed project does not include construction of new homes, architectural plans would be reviewed by the Building Department and the City Planner prior to the applicant obtaining building permits for each home to make sure requirements such as building heights are consistent with the ordinance. As a result, project implementation would be consistent with the existing zoning designation, and significant impacts would not occur.

XII. Mineral Resources *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

DISCUSSION

a - b. NO IMPACT. The California Department of Conservation's Division of Mines and Geology does not identify the project site as an area with high potential for aggregate or mineral resources. In addition, the GP 2030 (adopted 2012) does not identify the project site as a locally important mineral resource recovery site. As a result, implementation of the proposed project would not result in the loss of availability of a regionally or locally known mineral resource; therefore, significant impacts would not occur.

XIII. Noise *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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?	☐	☒	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. 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?	☐	☐	☒	☐

The discussion below is based on the findings contained within the *Noise Assessment Study for the Olive Avenue 15-Lot Tentative Subdivision Map/Annexation Project (Noise Report*) (HELIX Environmental Planning, July 2019) (HELIX, 2019b) prepared for the proposed project. The document is on file and available for review in the COV's Planning Division office.

DISCUSSION

a. LESS THAN SIGNIFICANT WITH MITIGATION.

NOISE DESCRIPTORS

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

REGULATORY FRAMEWORK

City of Vista General Plan, Noise Element

The Noise Element of the COV's General Plan includes a noise/land use compatibility matrix for assessing the suitability of different categories of planned land uses based on exterior noise level exposure (Table NE-3 from the COV's General Plan). For the proposed project's land use (Single-Family Residential), the Noise Element specifies exterior noise levels up to 60 dB CNEL as normally acceptable and up to 70 dB CNEL is conditionally acceptable. Noise levels exceeding 70 dB CNEL are generally unacceptable for single-family residential uses.

In addition, the COV defines specific maximum noise levels that shall not be exceeded for both interior and exterior use areas. A proposed project shall not generate noise levels that exceed these standards. The COV extends the provisions of the State of California Noise Insulation Standards (Title 24), limiting interior noise levels to 45 dB CNEL for single-family residential development. Table NOI-1, Interior and Exterior Noise Guidelines, provides limits for various types of land uses.

TABLE NOI-1 INTERIOR AND EXTERIOR NOISE GUIDELINES

Land Use	Maximum Noise Level (L_{DN} or CNEL, dBA)	
	Interior[1,2]	Exterior
Residential – Single Family, Multi-family, Duplex	45	65[3]
Residential – Nursing Homes, Hospital	45	65[3]
Private Offices, Church Sanctuaries, Libraries, Board Rooms, Conference Rooms, Theaters, Auditoriums, Concert Halls, Meeting Halls, etc.	45	-
Schools	45	65[4]
General Offices, Reception, Clerical, etc.	50	-
Bank Lobby, Retail Store, Restaurant, Typing Pool, etc.	60	-
Manufacturing, Kitchen, Warehousing, etc.	65	-
Parks, Playgrounds, etc.	-	65[4]
Golf Courses, Outdoor Spectator Sports, Amusement Parks, etc.	-	70[4]

Notes: *Source: Noise Element, Vista GP 2030 (adopted 2012)*

1 Noise standard with windows closed. Mechanical ventilation shall be provided per UBC requirements to provide a habitable environment.

2 Indoor environment excluding bathrooms, toilets, closets, and corridors.

3 Outdoor environment limited to rear yard of single-family homes, multi-family patios and balconies (with a depth of 6 feet or more) and common recreation areas.

4 Outdoor environment limited to playground areas, picnic areas, and other areas of frequent human use.

LDN=Day-Night Level; CNEL=Community Noise Equivalent Level; dBA=A-weighted decibel

CITY OF VISTA NOISE ORDINANCE (MUNICIPAL CODE, CHAPTER 8.32, NOISE CONTROL)

Sections 8.32.010 through 8.32.060 of the COV's Municipal Code pertain to noise requirements and enforcement of violations. The COV has adopted the County's Noise Ordinance for the purpose of controlling excessive noise levels, including noise from construction activities.

Table NOI-2, Applicable Exterior Property Line Noise Limits, lists the applicable exterior property line noise limits. This table is specific to the COV and replaces the table in Section 36.404 of the County noise ordinance. 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 exceeds these limits. The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones.

TABLE NOI-2 APPLICABLE EXTERIOR PROPERTY LINE NOISE LIMITS

Zone	Time	Applicable Limit One-hour Average Sound Level (dBA)
A-1, E-1, O, OSR R-1B, MHP	7:00 a.m. – 10:00 p. m. 10:00 p.m. – 7:00 a. m.	50 45
R-M	7:00 a.m. – 10:00 p.m. 10:00 p.m. – 7:00 a.m.	55 50
C-1, C-2, O-3, C-T, OP, M-U and Downtown Specific Plan	7:00 a.m. – 10:00 p.m. 10:00 p.m. – 7:00 a.m.	60 55
M-1, I-P, all areas of the Vista Business Park Specific Plan and Specific Plan 14	Any time	70

Source: City of Vista Municipal Code Section 8.32.40

A-1 = Agricultural; C-1 = Commercial; C-2 = Commercial; C-T = Commercial Transient; E-1 = Estate; I-P = Industrial; MHP = Mobile Home Park; M-U = Mixed Use; O = Open Space; O-3 = Office Park; OP = Office Professional; OSR = Open Space Residential; R-1B = Residence; R-M = Multi-Residential

Upon approval of the proposed project, the project site would be zoned R-1 (Single-Family Residential). Neighboring parcels are zoned R-1,

The adopted County Noise Ordinance also stipulates controlling construction noise. San Diego County Code Sections 36.408 and 36.409, Construction Equipment, state that, except for emergency work, it shall be unlawful for any person to operate or cause to be operated, construction equipment:

a) Between 7:00 p.m. and 7:00 a.m.
b) On Sunday or a holiday. For the purposes of this section, a holiday means January 1, the last Monday in May, July 4, the first Monday in September, December 25, and any day appointed by the President as a special national holiday or the Governor of the State as a special State holiday. A person may, however, operate construction equipment on a Sunday or holiday between the hours of 10:00 a.m. and 5:00 p.m. at the person's residence or for the purpose of construction of a residence for himself or herself, provided that the operation of construction equipment is not carried out for financial consideration or other consideration of any kind and does not violate the limits in Sections 36.409 and 36.410.
c) Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 dBA for an 8-hour period, between 7:00 a.m. and 7:00 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

Section 36.410 of the County's ordinance provides additional limitation on construction equipment beyond Section 36.404 pertaining to impulsive noise. Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table NOI-3, Maximum Sound Levels (Impulsive), when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period.

TABLE NOI-3 MAXIMUM SOUND LEVELS (IMPULSIVE)

Occupied Property Use	Decibels (dBA) L_{MAX}
Residential, village zoning or civic use	82
Agricultural, commercial or industrial use	85

Source: County of San Diego Municipal Code Section 36.410

The minimum measurement period for any measurements is one hour. During the measurement period, a measurement must be conducted every minute from a fixed location on an occupied property. The measurements must measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise exceeds the maximum sound level for any portion of any minute, it will be deemed that the maximum sound level was exceeded during that minute.

BASELINE NOISE LEVELS

As stated in the *Noise Report* (HELIX, 2019b), a site visit for noise measurements was conducted on Thursday, June 13, 2019. The 15-minute ambient noise measurement at the southern edge of the project site (approximately 50 feet north of Olive Avenue Centerline) was 58 dB Leq and the 10-minute ambient noise measurement at the central portion of the project site (approximately 50 feet east of the existing private driveway) was 44 dB Leq. Traffic noise on Olive Avenue is the dominant noise source at the project site. Other minor noise sources included common nature and neighborhood noises.

SENSITIVE LAND USES

Noise-sensitive land uses are land uses that may be subject to stress and/or interference from excessive noise, including residences, hospitals, churches, schools, hotels, resorts, libraries, sensitive wildlife habitat, or similar facilities where quiet is an important attribute of the environment. The nearest noise-sensitive land uses are single-family residences surrounding the project site.

NOISE IMPACTS

Potential noise impacts associated with the proposed project are primarily related to the short-term operation of conventional heavy-duty construction equipment, and long-term operational noise typical of residential land uses.

CONSTRUCTION NOISE

Project construction activities would include demolishing existing structures, excavating, grading, and compacting. Future construction activities for eventual development of the site would likely include installing wet and dry utilities, constructing homes, and paving. Standard equipment used on the site is assumed to include an excavator, front-end loader, dump truck, grader, and roller. Neither rock crushing nor blasting would be required for construction (HELIX, 2019b).

The magnitude of the impact would depend on the type of construction activity, equipment, duration of each construction phase, distance between the noise source and receiver, and any intervening structures. Construction would generate elevated noise levels that may disrupt nearby residences. Residences are located adjacent to the northern, western and eastern boundaries of the project site at an average distance of approximately 100 feet from construction activities. Table NOI-4, Construction Equipment Noise Levels, provides the 100-foot distance noise level for expected construction equipment.

TABLE NOI-4 CONSTRUCTION EQUIPMENT NOISE LEVELS

Unit	Percent Operating Time	L_{MAX} at 100 feet	dBA L_{EQ} at 100 feet
Backhoe	40	71.5	67.6
Compactor	20	77.2	70.2
Compressor	40	71.6	67.7
Concrete Mixer Truck	40	72.8	68.8
Concrete Pump Truck	20	75.4	68.4
Dozer	40	75.6	71.7
Dump Truck	50	70.4	66.5
Excavator	40	74.7	70.7
Front End Loader	40	73.1	69.1
Paver	50	71.2	68.2
Roller	20	74.0	67.0
Excavator/Loader/Dump Truck	40	74.7	73.9
Roller	20	70.5	63.5
Scraper	40	74	70.1

Source: HELIX, 2019b.

Construction equipment would not all operate at the same time or location. Furthermore, construction equipment would not be in constant use during the 8-hour operating day. A dozer and an excavator may be working on the site simultaneously but would not be working in close proximity to one another at a given time due to the nature of their respective operations. An excavator, loader, and dump truck were analyzed together for construction noise impacts due to their likelihood of being used in conjunction with one another.

Construction activity would be considered significant (exceed standards in Noise Ordinance) for nearby residences if it exceeds an exterior noise level 75 dB 8-Hour Leq. Based on these assumptions, grading operations using an excavator, loader, and dump truck at the nearest sensitive land use would be 73.9 dB Leq at 100 feet (see *Noise Report* for construction noise modeling). Construction noise from this equipment would be below the of 75 dB 8-hour Leq standard within the COV's Noise Ordinance.

Construction traffic noise was modeled for Olive Avenue at the nearest residences (50 feet from the centerline). Then temporary traffic noise increase along Olive Avenue from proposed project construction would be less than one dB and would be imperceptible to sensitive land uses. Furthermore, neither the COV's General Plan nor Noise Ordinance have standards for construction traffic noise increases.

The proposed project would comply with standards within the COV's Noise Ordinance and would also be required to comply with the construction hours within the ordinance (between 7:00 p.m. and 7:00 a.m. Monday through Saturday). Therefore, construction noise would be less than significant.

Operational Noise Impacts on Future Residences

Future on-site residential land uses would be exposed to noise from vehicular traffic along Olive Avenue, which is adjacent to the southern boundary of the project site. Impacts related to exterior noise would be potentially significant if future residential exterior use areas are exposed to noise levels in excess of 65 dB CNEL.

The 65 dB CNEL noise contour associated with traffic (including project-added trips) along Olive Avenue was modeled to be 45 feet from the roadway centerline. Residential exterior use areas closer than 45 feet of the Olive Avenue roadway centerline would therefore be exposed to exterior noise levels in excess of 65 dB CNEL. One proposed lot (Lot 1) would be adjacent to Olive Avenue, while the other 14 proposed lots would be greater than 200 feet north of Olive Avenue. Because the right-of-way associated with Olive Avenue is approximately 80 feet wide, residential exterior use areas are not anticipated to be sited within 45 feet of the roadway centerline. Therefore, the backyards of the future residences would not be exposed to noise levels in excess of the COV's 65 dB CNEL exterior noise standard.

As traditional architectural materials are expected to attenuate noise levels by 15 CNEL, if noise levels exceed 60 CNEL at the project's future residential exterior facades, interior noise levels may exceed the COV Noise Element interior noise standard for residential uses (HELIX, 2019b).

The 60 CNEL noise contour associated with traffic (including project-added trips) along Olive Avenue was calculated to be 145 feet from the roadway centerline. Residential structures within 145 feet of the Olive Avenue roadway centerline would be exposed to exterior noise levels in excess of 60 CNEL and may therefore be exposed to interior noise levels in excess of 45 CNEL without additional architectural attenuation. As such, the following mitigation measure would reduce this potentially significant impact to a less-than-significant level.

Mitigation Measure

NOI-1 Exterior-to-Interior Noise Level Limit. For residential facades where exterior noise levels exceed 60 CNEL (estimated to be within 145 feet of the Olive Avenue roadway centerline), the project applicant and/or owner shall coordinate with the project architects and other contractors to ensure compliance with the 45 CNEL interior noise standard for residential uses.

This shall be achieved through additional exterior-to-interior noise analysis once specific building plan information is available. This analysis shall be conducted for the proposed residences where exterior noise levels are expected to exceed 60 CNEL, which is within 145 feet of the Olive Avenue roadway centerline, to demonstrate that interior levels do not exceed the applicable COV Noise Element limit. The information in the analysis shall include wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell. With this specific building plan information, the analysis shall determine the predicted interior noise levels at the planned on-site residential units. If predicted noise levels are found to be in excess of the applicable limit, the report shall identify architectural materials or techniques that could be included to reduce noise levels to the applicable limit. The report shall be submitted with the application for a building permit from the COV.

OPERATIONAL NOISE IMPACTS ON EXISTING RESIDENCES

A typical HVAC unit generates a noise level of 56 dB at a distance of 7 feet (see *Noise Report* for assumptions and modeling). The nearest proposed residential structure would be approximately 50 feet from the project boundary. At this distance, the HVAC would generate a noise level of approximately 39 dB. Therefore, future HVAC units associated with the proposed residences would not exceed the COV's nighttime allowable hourly limit of 45 dB.

The proposed project would generate approximately 150 trips per day and existing average daily trips (ADT) on Olive Avenue are 9,800.[17] The proposed project would increase noise on Olive Avenue by approximately 0.1 dB and would be imperceptible to adjacent sensitive land uses (see *Noise Report*). Furthermore, neither the City General Plan nor the Noise Ordinance has standards for traffic noise increases. Therefore, the traffic noise impacts would be less than significant.

b. LESS THAN SIGNIFICANT IMPACT. A possible source of vibration during general project construction activities would be a vibratory roller, which may be used within 20 feet of off-site adjacent residences. A vibratory roller would create approximately 0.210 inch per second PPV at a distance of 25 feet (Caltrans 2013). A 0.210 inch per second PPV vibration level would equal 0.268 inch per second PPV at a distance of 20 feet.[18] This would be lower than the structural damage impact to older residential structures of 0.5 inches per second PPV but would exceed what is considered a "strongly perceptible" impact for humans of 0.1 inches per second PPV; however, off-site exposure to such groundborne vibration would be temporary. A vibratory roller moves at a speed of approximately two miles per hour, which equates to approximately 175 feet per minute. As the residences adjacent to the project site are approximately 50 feet wide, the vibratory roller would be in front of a single residence for about 20 seconds. Therefore, although vibration may be perceptible at nearby residences, temporary impacts associated with the roller (and other potential equipment) would be less than significant.

c. LESS THAN SIGNIFICANT IMPACT. The project is subject to some distant aircraft noise, though the site is not located near an active airport. The nearest airports are the McClellan-Palomar Airport, located just over five miles to the southwest, and Oceanside Municipal Airport, located less than five miles to the northwest. At these distances, no effects related to airport noise would occur at the project site, and impacts would be less than significant.

17 This figure is different than used in other sections for Olive Avenue. It was based on volumes from SANDAG's Traffic Forecast Information Center (TFIC) Series 13 2020 roadway forecast (SANDAG, 2019). In effect, it represents a worst-case scenario.
18 Equipment PPV = Reference PPV * $(25/D)^n$ (in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through the ground); formula from Caltrans, 2013b.

XIV. Population and Housing *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION

a - b. NO IMPACT. The project proposes to consolidate two lots totaling 4.94 gross acres and subdivide the site into a 15-lot single-family residential community. As stated in Chapter 2 of this document, all necessary utilities such as sewer, water, electricity, etc. are available either on-site or within the adjacent street of Olive Avenue. Therefore, project construction would not result in potentially growth-inducing effects by extending utilities into an undeveloped area or displace substantial numbers of existing housing or people. As a result, significant direct or indirect population growth or the need for replacement housing would not occur with project implementation.

XV. Public Services *a. Would the project 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:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1. Fire protection?	☐	☐	☒	☐
2. Police protection?	☐	☐	☒	☐
3. Schools?	☐	☐	☒	☐
4. Parks?	☐	☐	☐	☒
5. Other public facilities?	☐	☐	☐	☒

DISCUSSION

a1 – a3. LESS THAN SIGNIFICANT IMPACT.

FIRE PROTECTION SERVICES

The proposed project would result in less than significant impacts to fire protective services. The project site is 4.94 acres in size and is comprised of two parcels (APN: 162-493-30 and 162-493-31) that contains an existing single-family home and auxiliary structures. The project consists of subdividing the property into 15 residential lots, with the existing home demolished and replaced by a new home in the proposed subdivision, albeit on a smaller parcel. When the new homes are eventually constructed, they would be required to meet all of the applicable fire codes set forth by the State Fire Marshall, the VFD, and the COV's building code. Implementation of the proposed project may result in a slight incremental increase in the demand for emergency services; however the size and location of the project would not place an undue hardship on the fire department since they are presently servicing the site as well as areas adjacent to, and across the street from, the site. Fire protection services would be available from Vista Fire Station No. 1 located at 175 N Melrose Drive, approximately one mile away to the southeast. In addition, the VFD reviewed the Tentative Subdivision Map of the proposed project and provided recommendations to reduce potential impacts to fire protective services. These recommendations are included in the Conditions of Approval for the project. The Fire Department would also review the building and precise grading plans when they are submitted to the COV and would also identify and provide additional recommendations to reduce any potential impacts. In addition, prior to final project approval, the COV Fire Marshall would verify that the project has been designed to conform to code. Therefore, implementation of the proposed project would not exceed the capacity of VFD to serve the site with existing fire protection services and resources.

POLICE PROTECTIVE SERVICES

The proposed project would not result in significant impacts on police protective services. Increased demand for police protection is not expected since they are presently servicing the site as well as the areas adjacent to, and across the street from, the site. For that reason, the proposed project would not exceed the capacity of the Vista Sheriff's Department to provide police protective services to the proposed project, and impacts would be less than significant.

SCHOOLS

Future homes that would be built as a result of the implementation of the proposed project would not result in a significant direct increase in the population; however, the project would result in a small incremental increase in the city's population. Therefore, the project could place cumulative demands on VUSD schools or school operations that would require additional school facilities. However, with payment of the Residential Development School Fee as a condition of building permit approval, which is authorized by Section 17620 of the Education Code and based on $3.79 per square feet of assessable space (as of August 2019), no significant cumulative impacts to VUSD facilities are anticipated to arise.

a4 – a5. NO IMPACT. The project site is located along Olive Avenue, which is currently maintained by the City's Department of Public Works. As a result, no significant impacts are anticipated from project implementation.

Due to the relatively small size of the proposed project, no impacts on libraries, senior centers, or other public facilities are anticipated. Consequently, significant impacts would not occur.

XVI. Recreation *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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?	☐	☐	☒	☐
b. 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?	☐	☐	☒	☐

DISCUSSION

a - b. LESS THAN SIGNIFICANT IMPACT. The project would not significantly affect any property currently zoned for recreational or open space use. The project consists of subdividing the two-parcel property into 15 residential lots, with the existing home replaced by additional homes built in the proposed subdivision on smaller parcels. A small demand on existing recreational resources may be expected with any residential development within the city. However, this impact would not lead to a substantial physical deterioration of recreational facilities because a net of only 14 new homes would eventually be built on the site. As a result, impacts to recreational resources would be less than significant.

The project does not propose the development of any recreational facilities. As stated above, a small demand on existing recreational resources may be expected with any residential development within the city; however, this impact is anticipated to be minimal, and would not require the expansion of existing recreational facilities or the construction of new recreational facilities that might adversely affect the environment. As a result, less than significant impacts would occur with project implementation.

XVII. Transportation/Traffic *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? *NOTE: While public agencies may immediately apply Section 15064.3 of the updated Guidelines, statewide application is not required until July 1, 2020. In addition, uniform statewide guidance for Caltrans projects is still under development. The PDT may determine the appropriate metric to use to analyze traffic impacts pursuant to section 15064.3(b). Projects for which an NOP will be issued any time after December 28th, 2018 should consider including an analysis of VMT/induced demand if the project has the potential to increase VMT (see page 20 of OPR's updated SB 743 Technical Advisory), particularly if the project will be approved after July 2020.*	☐	☒	☐	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒

DISCUSSION

a - b. LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The applicant seeks approval of an Annexation Request into the city, a General Plan Amendment, Zone Change, and Tentative Subdivision Map to subdivide a 4.94-acre site (consisting of two parcels) into 15 lots ranging in size from 10,015 sq. ft. to 12,502 sq. ft. for a single-family residential development. There is an existing home that would be demolished and ultimately replaced within the proposed subdivision; however, none of the homes are proposed to be built at this time (see Figure 4, Proposed Lot and Grading Plan in Attachment A).

The subject property is located in an unincorporated portion of San Diego County, but within the COV's Sphere of Influence, in the western portion of the city that is adjacent to the city of Oceanside. Specifically, the property is located at 1435 Olive Avenue, on the north side of the street between Winter Road (Oceanside) to the west and Granada Drive (Vista) to the east. Olive Avenue, which runs east to west, is designated as a 4-Lane Collector (undivided) in the Vista Circulation Element of GP 2030 (adopted 2012), and has an 84-foot wide ROW that is improved with a 64-foot wide curb-to-curb pavement section centered within the ROW. It is presently configured as a two-lane roadway with a continuous left-turn lane, and parking on each side of the road from Ruby Road east past the project site until Cielita Linda Road (striped bike lanes along this section start from Grapevine Road). The road narrows to just a two-lane roadway with no parking or bike lanes from about Cielita Linda Road until just past Maryland Drive, where the road is improved fronting Olive Elementary School, allowing for a continuous left-turn lane, parking and bike lanes east to North Melrose Drive. The posted speed limit is 35 mph.

CITY OF VISTA THRESHOLD OF SIGNIFICANCE AND EXISTING CONDITIONS

Threshold of Significance

The COV's threshold of significance relies upon peak hour traffic operations at intersections rather than roadway segment analyses. Roadway segment Level of Service (LOS) standards are generally used as long-range planning guidelines to determine the functional classification of roadways and are not always accurate indicators of roadway performance. Typically, the performance and LOS of a roadway segment is heavily influenced by the ability of intersections to accommodate peak hour volumes.

LOS is the term used to denote the different operating conditions that occur under various traffic volume loads. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. The COV considers LOS D or better during the a.m. and p.m. peak hours to be the threshold of significance for intersection LOS. This is consistent with the approach of other jurisdictions within San Diego County and past studies conducted within the city. A significant traffic impact in Vista would include the following: (1) the addition of project traffic results in an LOS dropping from LOS D or better to LOS E or F; or (2) if an intersection is operating at LOS E or F under existing conditions and the project adds more than an additional two seconds of average vehicle delay. In the longer-range cumulative (or build-out) condition, if the addition of project traffic results in an LOS dropping from LOS D or better to LOS E or F, or if an intersection is predicted to operate at LOS E or F without the project and the project contributes to the average vehicle delay (regardless of time), the project is determined to have a cumulatively significant impact and mitigation is required.

Existing Average Daily Traffic (ADT) Volumes on Key Roadways

According to the COV's *GP 2030 PEIR* (certified 2012), the existing ADT along Olive Avenue between N. Emerald Drive and N. Melrose Drive is 9,320 vehicles. However, according to the most recent ADT Map (2017) from the COV's Traffic Division, the ADT along this same road segment has decreased and is 9,047 ADT. In addition, the 2017 ADT Map listed a maximum 8,683 ADT along Grapevine Road, between Olive Avenue and West Vista Way.

Existing LOS at Nearby Key Intersections

One key intersection identified for the proposed project is the N. Emerald Drive/Olive Avenue intersection. Table TT-1 summarizes the existing a.m. and p.m. peak hour LOS of the N. Emerald Drive/Olive Avenue key intersection to the proposed project as documented in the COV's *GP 2030 PEIR* (certified 2012).[19]

19 The N. Emerald Drive/Olive Avenue intersection is approximately 2,000 feet (0.38 miles) away from the project site to the west, and the N. Melrose Drive/Olive Avenue intersection is 1.0 mile away to the east.

TABLE TT-1 EXISTING PEAK HOUR LOS AT THE KEY INTERSECTION

Key Intersection	Existing (Base) Conditions			
	AM Peak Hour		PM Peak Hour	
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
N. Emerald Drive/Olive Avenue (signalized)	49.7	D	37.2	D

Source: Vista GP 2030 PEIR (Certified 2012)

Existing Transit Service

The nearest bus stop to the project site is located on N. Emerald Drive prior to the Olive Avenue intersection, less than one-half mile away. North County Transit District's (NCTD) BREEZE Bus Line does not operate a bus service route along Olive Avenue between N. Emerald Drive and N. Melrose Drive. The closest bus stop to the project is on Route # 323 - College Blvd. SPRINTER Station to Quarry Creek/Plaza Camino Real, which travels along N. Emerald Drive and then along Olive Avenue west of N. Emerald Drive.

Existing Pedestrian and Bicycle Access

There is an existing sidewalk along the frontage of the subject property on Olive Avenue and a majority of Olive Avenue has sidewalks. In addition, as noted above, although there are not complete bicycle lanes along the entire length of Olive Avenue, there are large sections of existing Class II bicycle lanes on each side of the road starting at Grapevine Road and ending just west of N. Melrose Drive.

Proposed Project Trip Generation

To determine the forecast of trips that would be generated by the proposed project, the trip generation rates from SANDAG's "*(Not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*" were utilized. According to this guide, the closest residential development to the general plan designation of the proposed project (MLD - max. of 5 DU/Acre) would be the Single-Family Detached (an average of three – six dwelling units per acre), which is estimated to generate 10 average daily trips (ADT) per weekday per residence. Table TT-2, below, summarizes the project trip generation rates as well as the forecasted project-generated trips under peak conditions based on those rates.

TABLE TT-2 PROPOSED PROJECT TRIP GENERATION

Land Use	Residences (DU)	Trip Rate	Daily Trips	AM Peak Hour		PM Peak Hour	
				%	Trips	%	Trips
Single Family Detached (average 3-6 DU/acre)	15	10 per DU	150	8	12 (4-in / 8-out)	10	15 (11-in /4-out)

Source: SANDAG (Not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region.

As shown in Table TT-2, when the 15 new homes are eventually built on the project site, there would be approximately 150 trips per day generated at ultimate buildout, with about 12 trips (eight percent of the daily trips) generated during the a.m. peak period (between 6:00-9:30 a.m.) and around 15 trips (ten percent of the daily trips) generated during the p.m. peak period (between 3:00-6:30 p.m.).

POTENTIAL CONSTRUCTION AND OPERATIONAL IMPACTS

Construction Impacts (temporary)

As stated in the Air Quality section of this document, preliminary calculations of the overall mass grading of the site are estimated at 9,900 CY of cut and 16,500 of fill and approximately 6,600 CY of import needed for the proposed project. This phase of the project is anticipated to take 60 working days to complete according to the *Air Quality Report* (SRA, 2019). As part of the Conditions of Approval, the applicant and/or contractor would be required to prepare and implement a Traffic Control Plan to the satisfaction of the City Traffic Engineer, and obtain a Haul Route Permit which is required for the transport of fill material to or from the site of any grading. Therefore, with the Traffic Control Plan in place, and given the width of the street, short-term temporary impacts to traffic during the construction period of the project is anticipated to be less than significant.

Operational Impacts (permanent)

Implementation of the proposed project would result in a total Vehicle Miles Traveled (VMT) of 428,296 once all of the new homes are constructed and occupied (SRA 2019a) However, there would not be any significant direct operational impacts in the near term to the key intersection noted in Table TT-1 given the roadways configuration, existing LOS and incremental increase added by the project once the homes are built and occupied. As stated above, the worst-case scenario for ADT along Olive Avenue was 9,320 vehicles (*GP 2030 PEIR,* certified 2012) and 8,683 ADT along Grapevine Road (City of Vista 2017 ADT Map).

As noted in Table TT-2 above, the proposed project trip generation at full build-out would be 150 ADT, which would represent less than a 0.016 percent increase in the ADT on Olive Avenue, and less than a 0.017 percent increase in the ADT on Grapevine Road, respectively. As a result, it is anticipated that development of the proposed project would not produce more than two seconds of delay at the key intersection identified in Table TT-1; therefore, this would not be considered a direct significant impact.

The results of the *GP 2030 PEIR* (certified 2012) analysis under Cumulative Year 2030 with GP Update Conditions is shown in Table TT-3, below. Based upon the threshold significance criteria presented above and in the *GP 2030 PEIR* (certified 2012), the addition of the proposed project traffic, though small, would contribute to a projected future significant cumulative impact at the N. Emerald Drive/Olive Avenue intersection during the a.m. peak hour. However, with implementation of Mitigation Measure TT-1, this impact would be reduced to a less than significant level.

TABLE TT-3 SUMMARY OF PEAK HOUR LOS
UNDER CUMULATIVE YEAR 2030 CONDITIONS AT KEY INTERSECTION

Key Intersection	Cumulative Year 2030 With GP Update Conditions			
	AM Peak Hour		PM Peak Hour	
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
N. Emerald Drive/Olive Avenue (signalized)	76.6	E	53.3	D

Source: Vista GP 2030 PEIR (Certified 2012)

MITIGATION MEASURE

TT-1 Prior to obtaining a COV Building Permit, the applicant and/or owner shall participate in the COV's Impact Fees for Arterials Streets and Traffic Signals program to pay its fair-share of the mitigation for cumulative impacts to the N. Emerald Drive/Olive Avenue intersection.

c – d. NO IMPACT. Implementation of the proposed project would not increase hazards due to geometric design features or incompatible uses or result in inadequate emergency access. As shown in Figure 4, Proposed Lot and Grading Plan in Attachment A, the project's private street takes access from Olive Avenue and has been designed to accommodate fire apparatus and the turning radii requirements of the VFD's vehicles and equipment.

As stated in the Surrounding Land Use section in Chapter 2 of this document, the Oceanside Municipal Airport is located less than five miles to the west-northwest; however, the site is not located within the vicinity of a private airstrip. The proposed project site is not located within any designated Oceanside Airport Land Use Compatibility Plan (ALUCP) hazard areas. As a result, the proposed project would not result in a safety hazard for people residing in the project. As a result, significant impacts would not occur with project implementation.

Implementation of the proposed project does not involve any potentially dangerous traffic or transportation hazards, nor does it propose any incompatible uses that could affect existing traffic or circulation in the project areas. As a result, significant impacts would not occur with project development.

The proposed project would not result in impacts to emergency access. The project has been designed to incorporate all required VFD standards to ensure that its implementation would not result in hazardous design features, or inadequate emergency access to the site or areas surrounding the site. Consequently, significant impacts would not occur with project implementation.

XVIII. Utilities and Service Systems *Would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. 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?	☐	☐	☒	☐
d. 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?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

DISCUSSION

a. – c. LESS THAN SIGNIFICANT IMPACT.

RELOCATED, NEW OR EXPANDED UTILITY OR SERVICE SYSTEM INFRASTRUCTURE

The proposed project would result in the construction of fifteen new single-family residences in a built-up/urbanized area of the city. The project is essentially an urban infill development project, with existing development on all four sides. All wet and dry public utilities, facilities and infrastructure are in place and available to serve the project site without the need for relocated, new or expanded facilities. While new public utility connections would be needed to the project site, and storm water BMPs would be constructed on-site, the new connections would not result in a need to modify the larger offsite infrastructure.

As a result, implementation of the proposed project would have a less than significant impact on water, wastewater treatment, storm water drainage, electrical power, natural gas, or telecommunications facilities or infrastructure.

SUFFICIENT WATER SUPPLY

Development of the project site, which currently contains a single-family dwelling, would increase the demand for potable water that is needed to serve the proposed fifteen new single-family homes anticipated to ultimately be developed on-site. Water service for the project would be provided by the Vista Irrigation District (VID or District) from the water main in Olive Avenue. The District is a member agency of the San Diego County Water Authority (SDCWA). VID imports approximately 70 percent of its potable water supply from SDCWA, who in turn buys it from the Metropolitan Water District of Southern California (MWD). The remaining 30 percent of VID's supply is from Lake Henshaw, which is fed through precipitation from the San Luis Rey watershed. The average daily demand of potable water for the proposed project would be approximately 5,434 gpd (4.94 acres x 1,100 gpd per acre).[20]

Water supplies necessary to serve the demands of the proposed project, along with existing and other projected future users, and the actions necessary to develop these supplies (e.g., conservation via Senate Bill 7 of the Seventh Extraordinary Session (or SBX 7-7), efficiency standards, etc.) have been identified in the Urban Water Management Plans (UWMPs) of VID, the SDCWA, and MWD. California's urban water suppliers are required to prepare UWMPs in compliance with the Urban Water Management Planning Act (California Water Code §10610 et seq.) and the Water Conservation Bill of 2009 (SBX 7-7). UWMPs are prepared every five years by urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands over a 20-year planning horizon, including the consideration of various drought scenarios and Demand Management Measures. The passage of SBX 7-7 in 2009 was enacted to require retail urban water agencies within California to achieve a 20 percent reduction in urban per capita water use by December 31, 2020 (Water Code Section 10608.20). As a result, SBX 7-7 also requires that UWMPs report base daily per capita water use (baseline), urban water use target, interim urban water use target, and compliance daily per capita water use. VID, SDCWA, and MWD calculate future demands within their respective service areas based on SANDAG's projected population and growth rate projections; SANDAG's projections are based on the land use policies in the general plans of the jurisdictions within San Diego County. These projections provide consistency between retail and wholesale agencies' water demand projections, thereby ensuring that adequate supplies are being planned for existing and future water users.

20 Based on a unit demand factor for single-family residential land use designation in Table 3-2 of VID's Potable Water Master Plan, April 9, 2018.

According to VID's *2015 Urban Water Management Plan* (*UWMP*) (June 2016), VID will use local water resources whenever possible; however, if there is a shortfall, they would rely on SDCWA supplies. In the analysis of a normal water supply year, as described in VID's *2015 UWMP* (June 2016), if SDCWA, MWD, and VID supplies are developed as planned and SBX 7-7 conservation targets are achieved, no shortages are anticipated within VID's service area in a normal year through 2040. That would mean that the District's entire projected potable water supply would meet the entire projected SBX 7-7 water demand of 24,147-Acre Feet in 2040. In the analysis of a single-dry year through 2040, VID's *2015 UWMP* (June 2016) findings indicated that if SDCWA, MWD and VID supplies are developed as planned and SBX 7-7 conservation targets are achieved, no shortages are anticipated within VID's service area. However, for multiple-dry year reliability analyses, the conservative planning assumption used in VID's *2015 UWMP* (June 2016) expects that MWD would be allocating supplies to its member agencies. As a result, some level of shortage could be potentially experienced. As stated above, when shortages occur in VID's resources, the SDCWA would use various measures to cover the shortfall, as described below.

The SDCWA was established pursuant to legislation adopted by the California State Legislature in 1943 for the primary purpose of supplying imported water to San Diego County for wholesale distribution to its member agencies. These imported water supplies consist of water purchases from MWD, core water transfers from Imperial Irrigation District (IID) and canal lining projects that are wheeled through MWD's conveyance facilities to the SDCWA's pipelines (or aqueducts), and spot water transfers that are pursued on an as-needed basis to offset reductions in supplies from MWD. Following the major drought in California of 1987 - 1992, which led to severe water supply shortages throughout the state, the SDCWA and its member agencies vigorously developed plans to minimize the impact of potential shortages by diversifying its supplies and strengthening its conservation programs. SDCWA's *2015 UWMP* (June 2016) identifies a diverse mix of water resources projected to be developed over the next 25 years to ensure long-term water supply reliability for the region. For example, existing and planned supplies from the Imperial Irrigation District transfer, canal lining projects are considered "verifiable" sources, and planned supplies from the new seawater desalination project in Carlsbad would be considered a drought-resilient supply.

The SDCWA, as a wholesale supplier, is also required by law to support its retail member agencies' efforts to comply with SBX 7-7 through a combination of regionally and locally administered active and passive water conservation measures, programs, and policies, as well as the use of recycled water. Examples of active measures and programs include residential and commercial water use surveys and education programs. Examples of passive measures include programs that encourage long-term behavior change towards measurable reductions in outdoor water use; increase the landscape industry's basic knowledge regarding the interdependency between water efficiency design, irrigation design, and maintenance; and participation on statewide, national, and industrial committees to advance behavior-based conservation strategies. Additional passive programs and policies include outreach activities, plumbing code changes, legislation, and conservation-based rate structures.

According to the SDCWA's *2015 UWMP* (June 2016) section on water supply reliability, under a single dry-year assessment using a very conservative assumption regarding limited Metropolitan supplies during a single dry water year, and assuming SDCWA and member agency supplies are maintained and developed as planned, along with achievement of the additional conservation target, no shortages are anticipated within the Water Authority's service area in a single dry year until 2035. These shortages would be eliminated should MWD supplies approach the supply levels projected in their *2015 UWMP* Single Dry Year Supply Capability. With the previous years leading up to the single dry year being wet or average hydrologic conditions, MWD should have adequate supplies in storage to cover potential shortfalls in core supplies and would not need to allocate. Therefore, it is anticipated that the SDCWA would be able to meet VID's increased

demands during a single-dry water year. For SDCWA's 2015 *UWMP* (June 2016) multiple dry-year reliability analysis, the conservative planning assumption is that MWD will be allocating supplies to its member agencies. Because it is uncertain in the future how MWD will allocate supplies to its member agencies, the analysis in SDCWA's *2015 UWMP* (June 2016) assumes supplies are allocated based on preferential right to MWD supplies. If a shortage occurs, the SDCWA plans to utilize action measures in its Water Shortage and Drought Response Plan. These actions include dry-year supplies, carryover storage, and regional shortage management measures to fill the shortfall. The SDCWA's dry-year supplies and carryover storage are components of managing potential shortages within the region and for increasing supply reliability for the region. The dry-year supplies assist in minimizing or reducing potential supply shortages from MWD. Over the last five years the SDCWA has developed a carryover storage program to manage supplies more effectively. This includes in-region surface storage currently in member agency reservoirs and increasing capacity through the recently completed raising of San Vicente Dam. The SDCWA also has an out-of-region groundwater banking program in the California central valley. Through these efforts, SDCWA can store water available during wet periods for use during times of shortage. In years where shortages may still occur, after utilization of carryover storage, additional regional shortage management measures, such as securing dry-year transfers and extraordinary conservation achieved through voluntary or mandatory water-use restrictions would also be undertaken.

On the local level, additional water conservation for new developments in Vista would be achieved through compliance with the Water Efficient Landscaping Ordinance in the COV's Development Code, Chapter 18.56. An Estimated Total Water Use (E\TWU) Worksheet for the proposed project would be required to be submitted in the application for a Grading Permit, which would have to be under the Maximum Applied Water Allowance (MAWA). As shown in Table 2-2 of this document, the total ETWU for the proposed landscape plan would be 553,505 gallons per year, some 57,001 gallons per year less than the MAWA. Accordingly, the proposed project would be in compliance with the COV Water Efficient Landscaping Ordinance.

In addition to the noted UWMP's described above, other regional and/or State entities may also enact other measures during multiple-dry water years as well, including emergency regulations. For example, on April 1, 2015, Governor Jerry Brown issued the fourth in a series of Executive Orders on actions necessary to address California's then current severe four-year drought conditions. The April 1 Executive Order requires, for the first time in the State's history, mandatory conservation of potable urban water use. In response to this order, the State Water Resources Control Board released draft emergency regulations to restrict overall potable urban water usage across the state by 25 percent. These regulations include such prohibitions as irrigating landscapes outside of newly constructed homes and buildings in a manner inconsistent with California Building Standards Code (e.g., CALGreen requirements for automatic irrigation systems with weather or soil moisture-based controllers and sensors, etc.). Implementation of these prohibitions will be promulgated through VID's regulations. As part of the Conditions of Approval for this project, compliance with any applicable VID emergency drought regulations regarding new development would be conducted by appropriate staff during review of project plans and various inspections prior to the approval of a Certificate of Occupancy. Therefore, as discussed in the above analysis the development of the project would not require new or expanded water entitlements from VID or require new water resources be found.

ADEQUATE WASTEWATER TREATMENT CAPACITY

Existing sewer lines of the COV sewer service system would extend into the project site from Olive Avenue. Wastewater is treated at the Encina Water Pollution Control Facility, which is a conventional activated sludge wastewater treatment plant with a treatment capacity of 43.3 million gallons per day (mgd). The COV sewer service system and Encina Facility operate in accordance with applicable wastewater treatment requirements of the San Diego Regional Water Quality Control Board, and the project's wastewater system has been designed to comply with these treatment requirements. Therefore, upon development, the proposed development would tie into existing wastewater/sewer lines and would adhere to all wastewater treatment requirements specified by the COV and the San Diego Regional Water Quality Control Board so that significant impacts would not occur.

Based on the COV's *Sewer Master Plan 2017 Update* (August, 2018), the proposed project would be expected to generate approximately 3,557 gpd of wastewater (4.94 acres x 720 gpd per acre) under the proposed MLD general plan land use designation.[21] The project's 8-inch private sewer pipe would connect to the Vista Sanitation District's 12-inch sewer mains in Olive Avenue. The COV system consists of approximately 229 miles of public pipelines and one pump station, serving approximately 16,000 parcels, and conveys an annual average flow of 6.53 mgd.[22] As stated above, wastewater from the project would be treated by the Encina Water Pollution Control Facility. Wastewater generation from the proposed project would not exceed the capacity of the Encina facility to treat it. Therefore, the project's contribution of wastewater would not require new water/wastewater facilities to be built or existing facilities to expand; as a result, impacts would be less than significant.

d – e. LESS THAN SIGNIFICANT IMPACT.

SOLID WASTE GENERATION

Development of the proposed 15 residential lots (and future single-family residences) would result in a negligible increase in domestic municipal solid waste generation. Construction of the project would entail demolition and removal of the existing single-family residence, barn, tennis court, swimming pool, other associated improvements, and landscaping. In addition, the above ground stockpiles of miscellaneous trash and debris that are scattered across the property would also be removed. As a result, the construction of the residential lots and associated improvements would likely generate both green waste (e.g., trees, shrubs, etc.) and construction and demolition debris. Once construction of the future residences begins, it would generate various types of debris, including asphalt, metal, wood, etc. In compliance with AB 939, Municipal Code Chapter 13.17 - Construction and Demolition Debris Recycling, the City would require the diversion of at least 50 percent of the total construction and demolition debris generated by a project via reuse or recycling via a Waste Management Plan.[23] To comply with this requirement, construction and demolition debris would typically be hauled to a Construction, Demolition and Inert (CDI) Recycling Facility, such as the Escondido Disposal Corporation's (EDCO) CDI facility in San Marcos. Any remaining debris that is not recyclable would be disposed at a licensed landfill such as the Sycamore Landfill in San Diego.

21 Table 3-10, Land Use Sewage Flow Generation Factors, *City of Vista Sewer Master Plan 2017 Update* (2018).
22 City of Vista website, http://www.cityofvista.com/services/city-departments/engineering/construction-projects/sewer, 2016
23 This is initiated through submission of a Waste Management Plan (WMP), which is part of the submittal package for a building permit. Prior to Final Building Approval, the applicant shall submit to the WMP Compliance Official documentation that it has met the Diversion Requirement for the project.

Once operational, the project is estimated to generate approximately 28 tons of solid waste per year (or 0.077 tons per day).[24] As discussed in the *GP 2030 Update PEIR* (certified 2012), EDCO is the current contracted solid waste hauler for the City and would serve the project. EDCO has several recycling programs, and the company processes over 1,000 tons of recyclables each day within its three material recovery facilities. Once all recyclables are recovered, the remaining solid waste would be taken to the Sycamore Landfill, which has a permitted capacity of 5,000 tons per day (tpd), and a remaining capacity of 113,972,637 cubic yards (CalRecycle, 2018). The average daily weight received at the Sycamore Landfill during September 2018 was 3,356 tons. Based on the project's projected daily generation of 0.077 tons of solid waste, the Sycamore Landfill can adequately accommodate the anticipated solid waste from the proposed project. Therefore, development of the proposed project would generate solid waste that would be within the capacity of local landfills, resulting in less than significant impacts.

COMPLIANCE WITH SOLID WASTE STATUTES AND REGULATIONS

The COV complies with all federal, State, and local statutes and regulations related to solid waste, such as AB 939 and AB 341. EDCO also complies with all applicable federal and State solid waste regulations. The San Diego County DEH issues permits to all solid waste facilities in the county, including the Sycamore Landfill (37-AA-0023) which undergoes monthly inspections. As solid waste generated by the proposed project would be diverted to material recovery facilities, with the remaining waste hauled to the Sycamore Landfill (or any active, permitted landfill facility in the county), it would comply with existing regulations related to solid waste. Therefore, the project would comply with all applicable federal, State and local management and reduction statues and regulations regarding solid waste, resulting in less than significant impacts.

24 Based on a solid waste generation rate of 1.95 tons annually per single-family residential household (source: Chapter 7, Public Safety, Facilities, and Services Element in the *GP 2030 Update* [adopted2012]). Since the existing residence already generated waste, the total predicted generation of solid waste for the proposed project would be 27.3 [1.95 x 15 = 29.25 tons - 1.95 {from the existing residence} = 27.3], rounded up to 28 tons.

XIX. Wildfire *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. 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?	☐	☐	☒	☐
c. 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?	☐	☐	☒	☐
d. 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?	☐	☐	☒	☐

DISCUSSION

a. LESS THAN SIGNIFICANT IMPACT. In general, VHFHSZs (Very High Fire Hazard Severity Zones) exist in the City's SOI immediately adjacent to the city boundaries. There are relatively large areas of VHFHSZ in the southern, eastern, and northeastern portions of Vista. Properties located in areas defined as a VHFHSZ are subject to more stringent building and landscape code requirements than are properties outside of that zone (GP 2030 Update PEIR, 2012). The site of the proposed project is located within the urban unzoned area as shown in the FHSZ Map layer of the VistaGIS map (2019). Parcels immediately surrounding the project site have the same designation. The closest VHFHSZ to the site is located 3.73 miles to the east, within the SOI, which is within the Vista Fire Protection District (VFPD). The VFPD has adopted Emergency Evacuation Plans in its Community Wildfire Protection Plan to identify evacuation routes, emergency facilities, and Vista fire Department (VFD) personnel and equipment available to effectively deal with emergency situations. No revisions to the adopted Emergency Evacuation Plans would be required due to the development of the proposed project.

The nearest VFD station is Fire Station No. 1 located at 175 N Melrose Drive, approximately one mile away to the southeast of the project site. As discussed in Section IX, Hazards and Hazardous Materials of this document, under resource topic F, the proposed project has been reviewed by the VFD, and it would provide all required emergency access in accordance with the requirements of the Department, and it would not impair or physically interfere with an evacuation plan. Therefore, impacts would be less than significant, and no mitigation is required.

b. LESS THAN SIGNIFICANT IMPACT. As discussed in the GP 2030 Update PEIR (certified 2012), the combination of southern California's Mediterranean climate (winter and spring rainfall and hot dry summers), and the frequency of high wind velocity from Santa Ana winds (which generally blow east to west) creates optimum conditions for wildfires. Steep terrain also contributes to the rapid spread of wildfires. Slopes affect the behavior of fire because they can change the proximity of separate burns. Many hillside areas within Vista have slopes with a gradient greater than 30 percent, resulting in long, winding roads that terminate on the sides and tops of ridges leading to single-family residences (2012).

The site of the proposed project is located within an urbanized area in the western portion of the city (see Figure 1, Jurisdictional Location Map, and Figure 2, Surrounding Area in Attachment A) and is located 3.73 miles west of the nearest VHFHSZ. This zone is within the SOI, which is within the VFPD. The VFD serves the VFPD and administers the Weed Abatement Program and Defensible Space requirements for new residential developments in the District, among other duties. The VFD and other City departments are active participants in the *Multi-Jurisdictional Hazard Mitigation Plan* (MJHMP) *for San Diego County* (2017), which identifies risks by natural and human-made disasters and ways to minimize the damage from those disasters. The City's portion of the *MJHMP* (2017) includes goals, objectives, and actions to reduce wildfire hazards within Vista. The City is responsible for implementing these goals and actions, which includes such actions as "continue to promote cooperative vegetation management programs that encompass hazard mitigation in the city and unincorporated areas that threaten the city" (2017).

As stated in Chapter 2 of this document, the site consists of a single-family residence, a barn, and associated improvements (pool, tennis court, etc.), and is comprised of moderate slopes that descend from the building pads to the north and southeast at approximately five to 13 percent. The project has been designed to meet all applicable development and fire codes, including landscaping and vegetation requirements. Also, VFD has been involved in plan checks for the discretionary permit review process, and the proposed project has been approved. Once applications for building permits are submitted, VFD will review all construction plans for adequate fire suppression, fire access, and emergency evacuation.

As a result, adherence to standard COV and State policies and regulations regarding fire codes would not result in exacerbating wildfire risks; therefore, potentially significant impacts from wildfire pollutants would be less than significant, and no mitigation is required.

c. LESS THAN SIGNIFICANT IMPACT. As previously discussed, all proposed project components (including utilities, road and driveways, retaining walls, landscaping, etc.) would be located within the boundaries of the project site, and impacts associated with the development of the project are analyzed throughout this document. As also noted above, the closest VHFHSZ to the site is located 3.73 miles to the east, within the SOI which is within the VFPD. The project has been designed to meet all applicable development and fire codes, including landscaping and vegetation requirements, and VFD has been involved in plan checks for the discretionary permit review process, and has preliminarily approved the project's compliance with its standards. As a result, adherence to standard COV policies in the installation or maintenance of associated infrastructure would not exacerbate fire risk, and potential impacts would be less than significant.

d. LESS THAN SIGNIFICANT IMPACT. As discussed above, the site of the proposed project is located 3.73 miles west of the nearest VHFHSZ. All proposed project components (including utilities, private road and driveways, retaining walls, landscaping, etc.) would be located within the boundaries of the project site, and impacts associated with the development of the project are analyzed throughout this document. The proposed project has been designed to meet all applicable development and fire codes, including landscaping and vegetation requirements, and VFD has been involved in plan checks for the discretionary permit review process, and has preliminarily approved the project's compliance with its standards. As a result, adherence to standard COV policies in the installation or maintenance of associated infrastructure would not 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; therefore, potential impacts would be less than significant.

XX. Mandatory Finding of Significance	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Does the project have 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 population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

DISCUSSION

a. LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. With the incorporation of mitigation measures, the proposed project would not have the potential to degrade the quality of the environment, reduce the habitat of any sensitive plant or animal species, or eliminate important examples of California history or prehistory.

As discussed in Section VI. in this chapter, based on the analysis in the *Bio Report* (TDI, 2019) it was determined that construction of the proposed project could result in significant temporary (direct) impacts to active bird nests on and off-site during the bird breeding season. However, if avoidance of the avian breeding season is not feasible, then Mitigation Measure BR-1 would be undertaken, which would reduce this potentially significant temporary impact to a biological resource to a less than significant level.

Based on the analysis in the *Cultural Report* (HELIX, 2019), which included a pedestrian survey of the project site by an archaeologist and a traditionally and culturally affiliated Native American monitor, surficial or known cultural or tribal cultural resources were not identified on the site. Nonetheless, based on a number of factors indicating that the surrounding area is generally rich in cultural and tribal cultural resources, unknown cultural, and tribal cultural resources, and human remains, could be inadvertently discovered during ground-disturbing activities, which would be considered a potentially significant impact. However, with the implementation of Mitigation Measures CR-1 to CR-6 in Section V in this chapter, these impacts would be reduced to less than significant levels.

b. LESS THAN SIGNIFICANT IMPACT. Implementation of the proposed project would not result in individually limited, but cumulatively considerable significant impacts. All resource topics associated with the project have been analyzed in accordance with State CEQA Guidelines and were found to pose no impacts, less-than-significant impacts, or less than significant impacts with mitigation. In addition, taken in sum with other projects in the area the scale of the proposed project is small, and impacts to any environmental resource or issue areas would not be cumulatively considerable. Therefore, impacts would be less than significant.

c. LESS THAN SIGNIFICANT IMPACT. The project would not consist of any uses or activities that would negatively affect any persons directly or indirectly. In addition, all resource topics associated with the project have been analyzed in accordance with CEQA and the State CEQA Guidelines and found to pose no impact, a less-than-significant impact, or a less than significant impact with mitigation incorporated. Consequently, the project would not result in any environmental effects that would cause substantial adverse effects on human beings directly or indirectly.

Chapter 4

REFERENCES AND LIST OF PREPARERS

References

Section 15150 of the State CEQA Guidelines permits an environmental document to incorporate by reference other documents that provide relevant data. The documents listed below are hereby incorporated by reference. The pertinent material is summarized throughout this Initial Study where that information is relevant to the analysis of impacts of the proposed project. Referenced documents that are followed by a star (*) are on file and available for review at the City of Vista Planning Division office located at 200 Civic Center Drive, Vista.

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- Autumn Chickering, Customer Project Planner, SDG&E/Sempra Utilities
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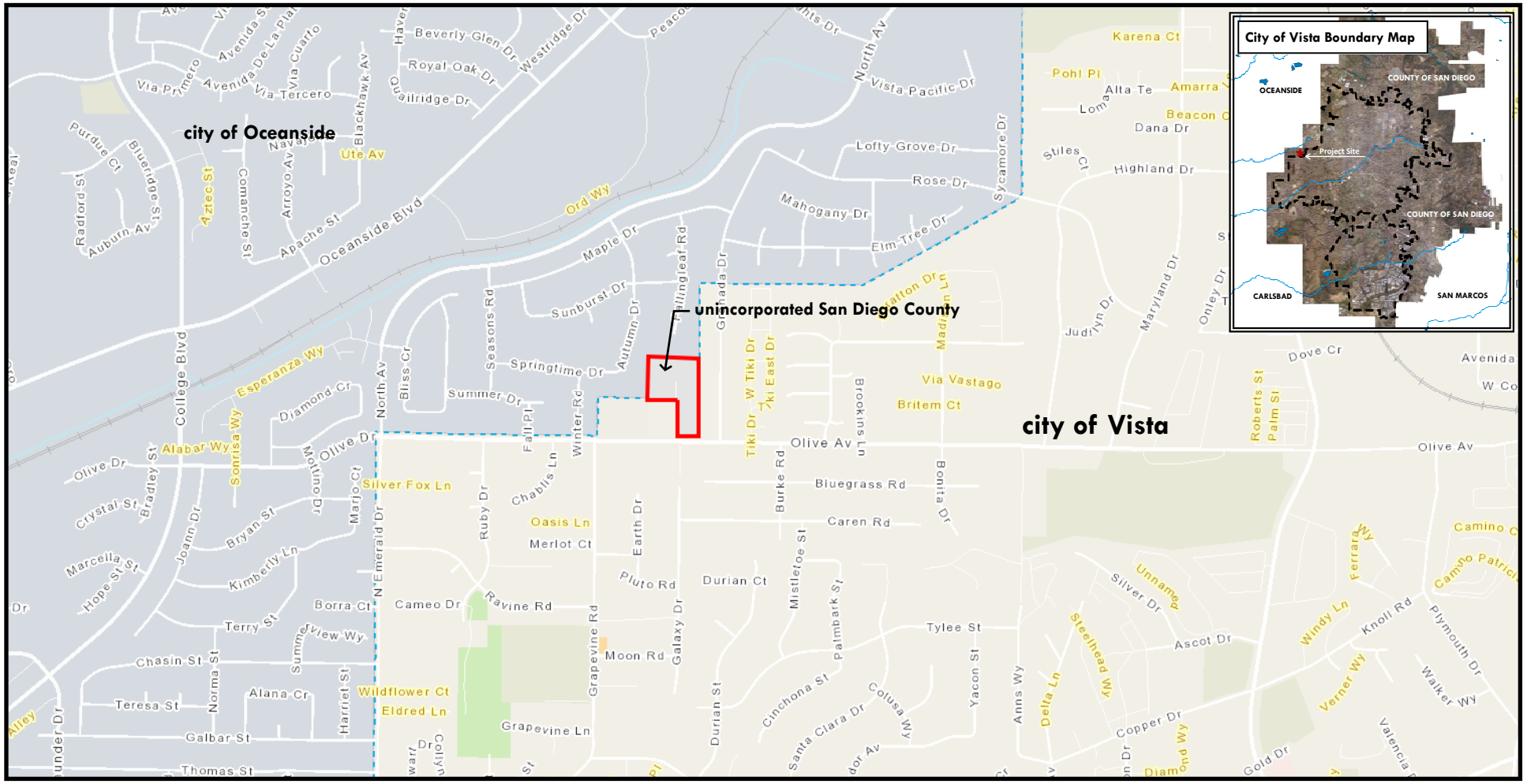
Preparers

- Leslea Meyerhoff, AICP, Principal, Summit Environmental Group, Inc.
- John Hamilton, AICP, Environmental Planner, City of Vista

Attachment A – Figures

OLIVE AVENUE 15-LOT TSM/ANX PROJECT



Source: City of Vista GIS, 2019 Image

North	= Location of Project Site	No Scale

FIGURE 1
JURISDICTIONAL LOCATION MAP

Source: VistaGIS, 2019 w/2014 contour layer

LEGEND

= Site of Proposed Project

= City Boundary

FIGURE 2
SURROUNDING LAND USES

OLIVE AVENUE 15-LOT TSM/ANX PROJECT

Source: VistaGIS, 2019 w/2014 contour layer

Notes
N. Parcel - APN: 162-493-30
S. Parcel - APN: 162-493-31

FIGURE 3
AERIAL PHOTO OF SUBJECT PROPERTY

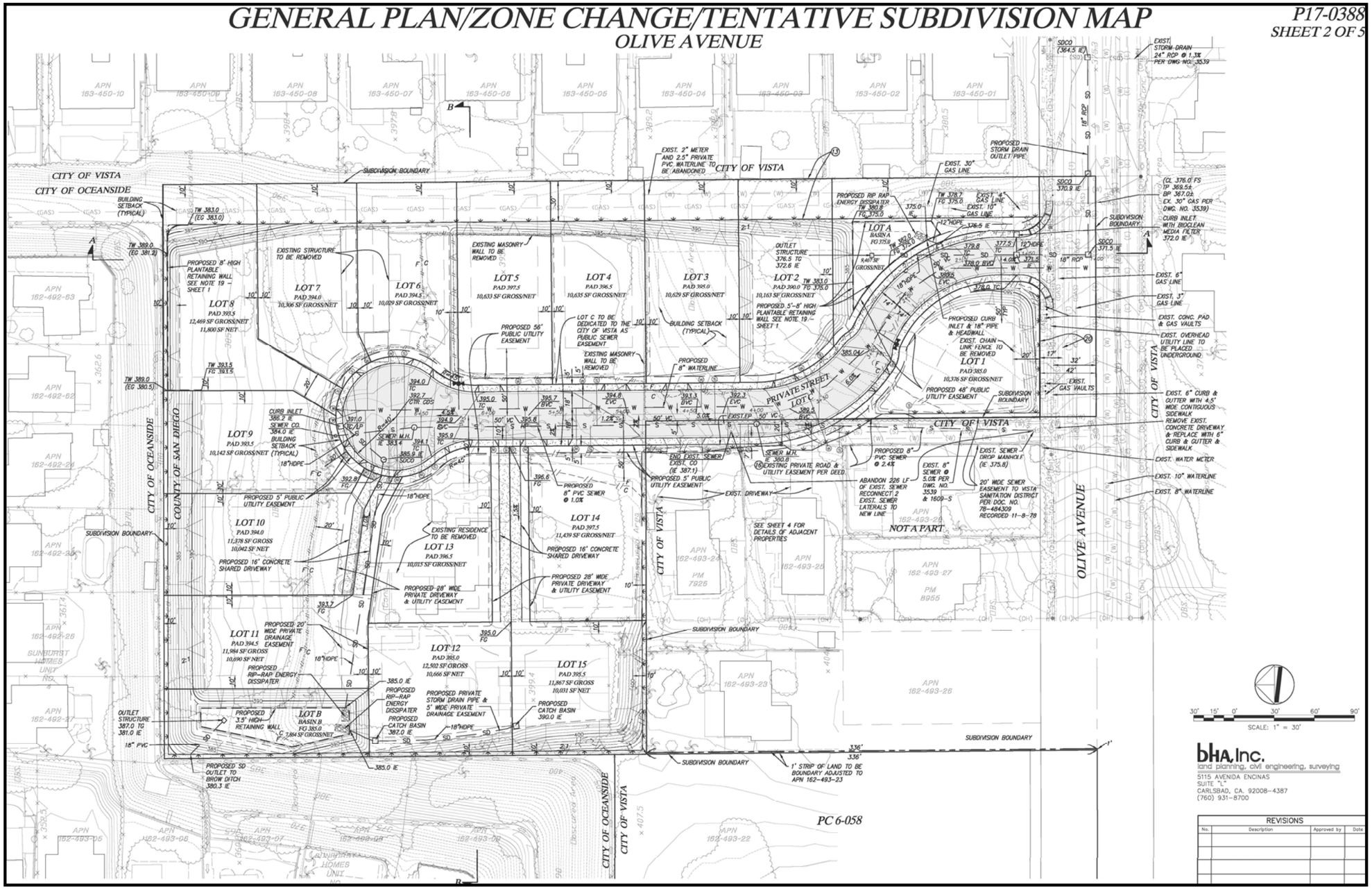


FIGURE 4
PROPOSED LOT AND GRADING PLAN

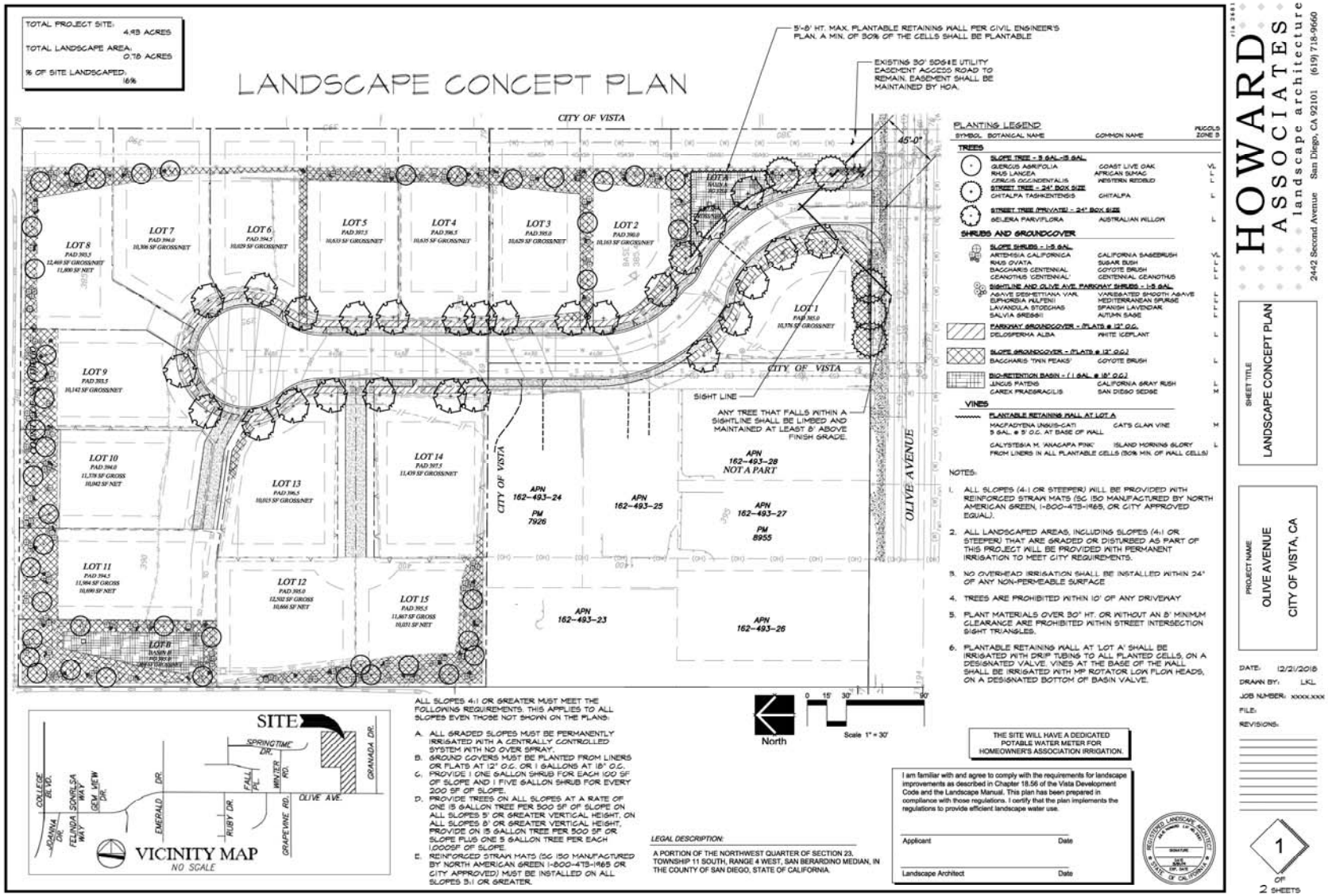


FIGURE 5
LANDSCAPE CONCEPT PLAN

Attachment B – Mitigation Monitoring & Reporting Program

CITY OF VISTA
MITIGATION MONITORING AND REPORTING PROGRAM FOR MITIGATED NEGATIVE DECLARATION P17-0388
NOVEMBER 2019

PROJECT NAME: Olive Avenue 15-Lot Tentative Subdivision Map & Annexation

DESCRIPTION: The applicant seeks approval of an Annexation Request into the city, a General Plan Amendment, a Zone Change, and a Tentative Subdivision Map to subdivide a 4.94-acre site into 15 lots of varying sizes for a residential development with a private street off of Olive Avenue; however, no homes are proposed to be built at this time. Overall, the proposed project involves demolition, grading the site and developing the building pads, installing wet and dry utilities, driveways, road improvements along Olive Avenue, and landscaping.

LOCATION: 1435 Olive Avenue, on the north side of the street between Winter Road (Oceanside) to the west and Granada Drive (Vista) to the east, in unincorporated San Diego County.

The following Mitigation Measures have been incorporated into the project design or are to be implemented before or during construction in accordance with the Conditions of Approval for the project, thereby reducing all identified impacts to less than significant levels.

Mitigation Measures		Staff Monitor	Timing of Compliance	Date of Compliance
BR-1	All vegetation removal or grading will be performed prior to or after the bird breeding season, January 1 through September 15 (i.e., only between September 16 and December 31). If clearing or grading cannot be avoided during the bird-breeding season, a one-time pre-construction nest survey conducted by a Qualified Biologist (i.e., with experience in conducting breeding bird surveys) shall be conducted within the proposed impact area 72 hours prior to construction. This survey is necessary to assure avoidance of impacts to nesting raptors (e.g., Cooper's hawk and red-tailed hawk) and/or birds protected by the federal Migratory Bird Treaty Act. If nesting activities within 300 feet of the proposed work area (within 500 feet for raptors) are not detected, construction activities may proceed. If any active nests are detected, the area shall be flagged and mapped on the construction plans with buffers as determined by the project biologist and avoided until the nesting cycle is complete. Project personnel shall be instructed about the protocol. The results of the survey would be provided in a summary report to the Director of Community Development, and to CDFW (if required). By avoiding clearing during the bird breeding season and/or impacts to nesting birds and raptors, the proposed project would be in compliance with the MBTA and pertinent sections of the CFG Code.	City Planner and/or City Engineer	Prior to any demolition, or removal of vegetation, or grading	
CR-1	Cultural resource mitigation monitoring shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by, or may be discovered during, the construction of the proposed project. In addition, archaeological monitoring will address the identification, evaluation, treatment, and potential mitigation of impacts to historic archaeological resources encountered during construction. The monitoring shall consist of the full-time presence of a Qualified Archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor for, but not limited to, any clearing or grubbing of vegetation, tree removal, demolition and/or removal of remnant foundations, pavements, abandonment and/or installation of infrastructure; grading or any other ground disturbing or altering activities, including the placement of imported fill materials (note: all fill materials shall be absent of any and all cultural resources); and related off-site road improvements, including, but limited to, the installation of infrastructure, and the realignments and/or expansions to Olive Ave. Other tasks of the monitoring program shall include the following: • The requirement for cultural resource mitigation monitoring shall be noted on all applicable construction documents, including demolition plans, grading plans, etc. • Prior to the issuance of a Grading Permit, the Applicant or Owner, and/or Contractor shall provide a written and signed letter to the City of Vista's (COV) Director of Community Development, stating that a Qualified Archaeologist and a TSA Native American Monitor have been retained at the Applicant or Owner and/or Contractor's expense to implement the monitoring program, as described in the pre-excavation agreement, noted below. A copy of the letter shall be included in the grading plan submittals for the Grading Permit.	City Planner	Prior to any and all on-site and off-site all ground disturbing or altering activities, including any informal or formal solicitation of construction bids	

Mitigation Measures		Staff Monitor	Timing of Compliance	Date of Compliance
	• The Qualified Archaeologist and TCA Native American Monitor shall attend all applicable pre-construction meetings with the Contractor and/or associated Subcontractors to present the cultural monitoring program. • The Qualified Archaeologist shall maintain ongoing collaborative consultation with the TCA Native American monitor during all ground-disturbing or ground-altering activities, as identified above. The Applicant and/or Owner, and/or Grading Contractor shall notify the Director of Community Development, preferably through e-mail, of the start and end of all ground-disturbing activities. • The Qualified Archaeologist and/or TCA Native American monitor may halt ground disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the Qualified Archaeologist and the TSA Native American monitor, in consultation with the San Luis Rey Band. Ground disturbing activities shall not resume until the Qualified Archaeologist, in consultation with the TCA Native American monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the Qualified Archaeologist's discretion, the location of ground disturbing activities may be relocated elsewhere on the project site to avoid further disturbance of cultural resources. • The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the COV as the Lead Agency under CEQA. If data recovery is required, then the San Luis Rey Band shall be notified and consulted in drafting and finalizing any such recovery plan.			
CR-2	Prior to the issuance of a Grading Permit, and subject to approval of terms by the COV, the Applicant or Owner, and/or Contractor shall enter into a Pre-Excavation Agreement with the San Luis Rey Band. A copy of the signed Agreement shall be forwarded to the City Planner. The purpose of this agreement shall be to formalize protocols and procedures between the Applicant or Owner, and/or Contractor, and the San Luis Rey Band for the protection and treatment of, but not limited to, such items as Native American human remains, funerary objects, cultural and religious landscapes, ceremonial items, traditional gathering areas and cultural items located and/or discovered through the cultural resource mitigation monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, soil surveys, grading, or any other ground disturbing activities.	City Planner	Prior to issuance of a demolition or grading permit, and throughout all ground disturbing or altering activities	

Mitigation Measures		Staff Monitor	Timing of Compliance	Date of Compliance
CR-3	Prior to the release of the Grading Bond, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, a Research Design, Data Recovery Program, etc.) shall be submitted by the Qualified Archaeologist, along with the TCA Native American monitor's notes and comments if necessary, to the COV's Director of Community Development for approval. Once reviewed and approved, the City shall submit a copy of the final report to the Rincon Band of Luiseño Indians.	City Planner	Prior to the release of the Grading Bond	
CR-4	All cultural materials that are associated with burial and/or funerary goods will be repatriated to the Most Likely Descendant as determined by the Native American Heritage Commission per California Public Resources Code Section 5097.98.	Director of Community Development	Throughout all ground disturbing or altering activities	
CR-5	Recovered cultural material of historic significance shall be curated with accompanying catalog, photographs, and reports to a San Diego curation facility that meets federal standards per 36 CFR Part 79. Recovered cultural material of tribal cultural significance shall be repatriated as stipulated in the pre-excavation agreement as described in CR-2.	City Planner	Throughout all ground disturbing or altering activities	
CR-6	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 San Diego County Coroner's office by telephone. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie adjacent remains (as determined by the Qualified Archaeologist and/or the TCA Native American monitor) shall occur until the Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98. If such a discovery occurs, a temporary construction exclusion zone shall be established surrounding the area of the discovery so that the area would be protected (as determined by the Qualified Archaeologist and/or the TCA Native American monitor), and consultation and treatment could occur as prescribed by law. As further defined by State law, the Coroner would determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC would make determination as to the Most Likely Descendent. If Native American remains are discovered, the remains shall be kept “in situ” ("in place") or in a secure location in close proximity to where they were found, and the analysis of the remains shall only occur on-site in the presence of the TCA Native American monitor.	City Planner	Throughout all ground disturbing or altering activities	

Mitigation Measures		Staff Monitor	Timing of Compliance	Date of Compliance
GS-1	Due to the high potential for uncovering fossils, paleontological resources mitigation monitoring shall be undertaken for on-site mass grading activities. Paleontological monitoring shall be conducted to provide for the identification, evaluation, and recovery of any exposed fossil remains that may be discovered during the construction of the proposed project. The monitoring shall consist of the on-site presence of a Qualified Paleontologist (or a Paleontological Resources Monitor under the supervision of a Qualified Paleontologist) during initial cutting, grading or excavation into the underlying Santiago Formation. Other tasks of the monitoring program shall include the following: • Prior to the issuance of a Grading Permit, the Applicant or Owner, and/or Contractor shall provide a written and signed letter to the City of Vista's Director of Community Development, stating that a Qualified Paleontologist (or a Paleontological Resources Monitor under the supervision of the Qualified Paleontologist) has been retained at the Applicant or Owner and/or Contractor's expense to implement the monitoring program. A copy of the letter shall be included in the Grading Plan Submittals for the Grading Permit. • The requirement for paleontological resource mitigation monitoring shall be noted on all grading plans. • The Qualified Paleontologist shall attend all pre-grading/pre-construction meetings to consult with grading contractors regarding the requirement of monitoring for paleontological resources.	City Engineer and/or City Planner	During any grading and/or excavations implemented during construction of the proposed project	
GS-2	If paleontological resources are unearthed, the Qualified Paleontologist (or a Paleontological Monitor under supervision of a Qualified Paleontologist) shall: • Direct, divert, or halt any grading or excavation activity until such time that the sensitivity of the resource can be determined, and the appropriate recovery implemented. • Grading activities shall not resume until the Qualified Paleontologist, or Paleontological Monitor, deems the fossil has been appropriately documented and/or protected. At the Paleontologist Archaeologist's discretion, the location of grading activities may be relocated elsewhere on the project site to avoid further disturbance of the paleontological resources. • Salvage unearthed fossil remains, including simple excavation of exposed specimens or, if necessary, other required methods (e.g., plaster-jacketing of large and/or fragile specimens). • Record stratigraphic and geologic data to provide a context for the recovered fossil remains, if feasible, and photographic documentation of the geologic setting. • Curate, catalog and identify all fossil remains, and transfer the cataloged fossil remains to an accredited institution (museum or university) in California that maintains paleontological collections for archival storage and/or display.	City Engineer and/or City Planner	During any grading and/or excavations implemented during construction of the proposed project	

Mitigation Measures		Staff Monitor	Timing of Compliance	Date of Compliance
N-1	Exterior-to-Interior Noise Level Limit. For residential facades where exterior noise levels exceed 60 CNEL (estimated to be within 145 feet of the Olive Avenue roadway centerline), the project applicant and/or owner shall coordinate with the project architects and other contractors to ensure compliance with the 45 CNEL interior noise standard for residential uses. This shall be achieved through additional exterior-to-interior noise analysis once specific building plan information is available. This analysis shall be conducted for the proposed residences where exterior noise levels are expected to exceed 60 CNEL, which is within 145 feet of the Olive Avenue roadway centerline, to demonstrate that interior levels do not exceed the applicable City of Vista Noise Element limit. The information in the analysis shall include wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell. With this specific building plan information, the analysis shall determine the predicted interior noise levels at the planned on-site residential units. If predicted noise levels are found to be in excess of the applicable limit, the report shall identify architectural materials or techniques that could be included to reduce noise levels to the applicable limit. The report shall be submitted with the application for a building permit from the COV.	City Building Official and/or City Planner	Prior to Building Permit Approval	
TT-1	Prior to obtaining a City of Vista (COV) Building Permit, the applicant and/or owner shall participate in the COV's Impact Fees for Arterials Streets and Traffic Signals program to pay its fair-share of the mitigation for cumulative impacts to the N. Emerald Drive/Olive Avenue intersection.	Director of Community Development	Prior to Building Permit Approval	