4.7 NOISE

This section analyzes the proposed Fire Station 10 Project's temporary noise impacts associated with construction activity and long-term noise impacts associated with operation.

4.7.1 Existing Setting

Sound Characteristics and Measurement

Noise is generally defined as unhealthful sound levels or unwanted sound that substantially interferes with normal activities or otherwise diminishes the quality of the environment. Noise is usually measured as sound level on a logarithmic decibel (dB) scale. Long-term exposure to higher noise levels (i.e., continuous, involuntary exposure for many hours per day over a long period of time) may affect human health through sleep deprivation, nervous conditions, etc. Relevant scientific literature indicates that prolonged exposure to elevated sound levels could increase the risk of certain health conditions, including hypertension and other cardiovascular conditions. Therefore, in the context of an analysis of potential noise impacts, significant noise impacts are primarily associated with the potential for constant exposure to higher noise levels, such as high interior noise levels during sleeping hours. Exposure to ongoing high noise levels in exterior living areas would typically involve shorter exposure times, and higher noise levels may not represent a significant environmental impact. In addition, residences are usually insulated and typical construction since the 1970s can reduce interior noise levels substantially.

Noise has three properties that can be described and measured: *magnitude*, *frequency* and *duration*. The *magnitude* of variations in air pressure associated with a sound wave results in the quality commonly referred to as "loudness." This property is typically measured in the dB scale. *Frequency* refers to the number of times per second the object producing the sound vibrates, or oscillates. *Duration* refers to the length of time for any given noise exposure.

Since environmental noise at any location is usually fluctuating from quiet one moment to loud the next, it is necessary to describe a noise level over time. The most common approach to describe varying noise levels is to define the Equivalent Noise Level (Leq) for a specified period of time. The Leq is a single value that represents the total sound energy of a time-varying noise. Leq is defined as the continuous steady-state noise level that would have the same total acoustical energy as the real fluctuating noise measured during the same time duration. Although Leq can be measured or computed for any duration, it is typically specified for one hour (Leq[h]) or 24 hours (Leq[24h]). Leq values and the other noise metrics described below are expressed as decibels on the "A" weighted frequency scale (dBA). The A-weighted frequency filter de-emphasizes the very low and very high frequency components of sound in a manner similar to the frequency response of human hearing.

Noise within California communities is evaluated in terms of the Community Noise Equivalent Level (CNEL) metric. CNEL is the same as a 24-hour Leq except that 5 dBA is added to levels measured during the evening hours (7:00 p.m. to 10:00 p.m.) and 10 dBA to levels measured during the nighttime hours (10:00 p.m. to 7:00 a.m.). These penalties account for the increased community noise sensitivity during the evening and nighttime. A similar scale is the Day-Night Average Noise Level (Ldn), which includes a penalty of 10 dBA for the nighttime period only. Results of CNEL and Ldn generally agree to within 1 dBA. Most California noise ordinances specify levels using the CNEL metric, while most Federal laws use the Leq metric.

Different sources and types of noise can affect communities in different ways. Ambient noise refers to background noise. It is the composite of noise from all sources that impact a given location and represents the normally existing noise environment at a particular place. Ambient noise levels are measured using weighted noise measurement systems, such as CNEL. Nuisance noise refers to sounds that are intentionally created, but are of relatively short duration.

Table 4.7-1 identifies noise levels associated with some common indoor and outdoor activities and settings. This table also indicates the subjective human judgments of noise levels, specifically the perception of noise levels doubling or being halved. For reference purposes, a baseline noise level of 70 dB is described as moderately loud. Humans perceive an increase of 10 dB as a doubling of loudness, while an increase of 30 dB corresponds with an eight-fold increase in perceived loudness.

Table 4.7-1. Sound Levels of Typical Noise Sources and Noise Environments

Noise Source (at a given distance)	A-Weighted Sound Level Scale (dBA)
Commercial Jet Takeoff (200 feet)	120
Pile Driver (50 feet)	110
Emergency Vehicle Siren (100 feet)	100
Power Lawn Mower (3 feet)	
Motorcycle (25 feet)	90
Prop. Plane Flyover (1,000 feet)	
Garbage Disposal (3 feet)	80
Passenger Car, 65 mph (25 feet)	70
Vacuum Cleaner (3 feet)	
Normal Conversation (5 feet)	60
Air Conditioning Unit (100 feet)	
Light Traffic (100 feet)	50

Source: Branch & Beland 1970.

Characteristics of Vibration

Vibration is sound radiated through the ground. The vibration of floors and walls may cause perceptible vibration, rattling of items such as windows or dishes on shelves, or a rumble noise. The rumble is the noise radiated from the motion of the room surfaces. In essence, the room surfaces act like a giant loudspeaker causing what is called ground-borne noise. Ground-borne vibration is almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction. In addition, the rumble noise that usually accompanies the building vibration is perceptible only inside buildings.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal and is typically expressed in units of inches per second (in/sec). The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration (Federal Transit Administration 2006). Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

Noise Sources

The northerly boundary of the Project site is located approximately 250 feet south of the U.S. 101 mainline and 35 feet south of the Union Pacific Railroad (UPRR) tracks and north of Hollister Avenue. The Project site is also in an area characterized primarily by residential and recreational development. Consequently, noise sources affecting noise levels on-site and in the Project site vicinity include traffic noise, railroad noise, and noise associated with recreational activity on the Sandpiper Golf Club.

Current Noise Levels

The Noise Element of the Goleta General Plan shows the northern half of the Project site as being within the 65 dBA CNEL noise contour for U.S. 101 and the remainder of the Project site as being within the 60 dBA CNEL noise contour. The Noise Element also shows the northern part of the Project site as within the 70 dBA CNEL noise contour for the railroad, the central part of the Project site as within the 65 dBA CNEL noise contour, and the southern part of the Project site as within the 60 dBA CNEL noise contour.

The Project site is located approximately 2.8 miles west of the Santa Barbara Municipal Airport and is located outside of the airport's noise exposure range (Santa Barbara County Airport Land Use Commission & SBCAG 2012).

Sensitive Noise Receptors

The City of Goleta General Plan Noise Element defines sensitive receptors as users or uses that are interrupted (rather than merely annoyed) by relatively low levels of noise and include residential neighborhoods, schools, libraries, hospitals and rest homes, auditoriums, certain open space areas, and public assembly places. The multi-family Hideaway Townhouses located directly adjacent to the Project site, as well as the Sandpiper Golf Club located to the south, are considered to be sensitive noise receptors under the City's General Plan/Coastal Land Use Plan.

4.7.2 Regulatory Setting

Federal

Federal Noise Control Act (1972). Public Law 92-574 regulates noise emissions from operation of all construction equipment and facilities; establishes noise emission standards for construction equipment and other categories of equipment; and provides standards for the testing, inspection, and monitoring of such equipment. This Act gives states and municipalities primary responsibility for noise control.

State

State of California's Guidelines for the Preparation and Content of Noise Element of the General Plan (1987). These guidelines reference land use compatibility standards for community noise environments as developed by the California Department of Health Services, Office of Noise Control. Sound levels up to 60 Ldn or CNEL are determined to be normally acceptable for low density, single-family, duplex, and mobile home residential land uses. Sound levels up to 70 Ldn or CNEL are considered conditionally acceptable (where new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design).

California Noise Control Act (1973). This Act declares that excessive noise is a serious hazard to the public health and welfare, and established the now defunct Office of Noise Control, which had the responsibility to set standards for noise exposure in cooperation with local governments or the California Legislature. The California Office of Noise Control land use compatibility guidelines defined a 70 dBA CNEL noise level as the upper limit of "normally acceptable" noise levels for sensitive uses such as schools, libraries, hospitals, nursing homes, churches, parks, offices, and commercial and professional businesses. Although the Office of Noise Control is defunct, its guidelines still apply under the Act.

California Building Standards Code (Title 24). Title 24 of the California Code of Regulations includes sound transmission control requirements that establish uniform minimum noise insulation performance standards for new hotels, motels,

dormitories, apartment houses, and dwellings other than detached single-family units. Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dBA CNEL in any habitable room of new dwellings. Dwellings are to be designed so that interior noise levels would meet this standard for at least ten years from the time of building permit application.

Local

City of Goleta General Plan/Coastal Land Use Plan Noise Element (2006). The General Plan Noise Element defines sensitive receptors as users or types of uses that are interrupted (rather than merely annoyed) by relatively low levels of noise. These include: residential neighborhoods, schools, libraries, hospitals and rest homes, auditoriums, certain open space areas, and public assembly places.

The Noise Element of the Goleta General Plan establishes noise standards for various land use categories based on the U.S. Department of Housing and Urban Development Guidelines and standards from the California Office of Noise Control. The City recommends 50-60 dBA as the "normally acceptable" range and 60-65 dBA as the "conditionally acceptable" range for multi-family residential uses. According to the Goleta General Plan, multi-family residences within the "normally acceptable range" are deemed satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Development of multi-family residences within the "conditionally acceptable" range should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Table 4.7-2 shows the noise and land use compatibility criteria in the City's Noise Element.

The following are City General Plan Noise Element policies which would apply to the Project:

- Noise Element Policy NE 1.1 requires mitigation for development that would subject proposed land uses to noise levels that exceed the acceptable levels shown in Table 4.7-2.

- Noise Element Policy NE 1.2 requires new development in areas over 60 dBA CNEL to include mitigation measures to reduce interior noise levels to 45 dBA CNEL or less. The Noise Element also restricts construction activities near or adjacent to residential buildings and other sensitive receptors to the hours of 8:00 AM to 5:00 PM Monday through Friday and 7:00 AM to 4:00 PM Monday through Friday for construction in nonresidential areas (Policy NE 6.4).

- Noise Element Policy NE 6.5 requires noise mitigation for construction equipment.

Table 4.7-2. Goleta Noise and Land Use Compatibility Criteria

Land Use Category	Community Noise Exposure (Ldn or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – low density	50-60	60-65	65-75	75-85+
Residential – multi-family	50-60	60-65	65-75	75-85+
Transient Lodging – motels and hotels	50-65	65-70	70-80	80-85+
Schools, libraries, churches, hospitals, and nursing homes	50-60	60-65	65-80	80-85+
Auditoriums, concert halls and amphitheaters	NA	50-65	NA	65-85+
Sports arenas and outdoor spectator sports	NA	50-70	NA	70-85+
Playgrounds and neighborhood parks	50-70	NA	70-75	75-85+
Golf courses, riding stables, water recreation, and cemeteries	50-70	NA	70-80	80-85+
Office Building, business commercial, and professional	50-67.5	67.5-75	75-85+	NA
Industrial, manufacturing, utilities, and agriculture	50-70	70-75	75-85+	NA

Notes:
Normally Acceptable: Specific land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or conditioning, will normally suffice.
Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise construction requirements shall be made and needed noise insulation measures shall be included in the design.
Clearly Unacceptable: New construction or development should generally not be undertaken.
NA: Not Applicable.
Source: Table 9-2, City of Goleta Noise Element; City of Goleta 2006.

City of Goleta Municipal Code (GMC). GMC Chapter 9.09 regulates noise in the City. The purpose of the Chapter is to preserve public peace and comfort of citizens of Goleta from unwarranted noise and disturbances. The GMC prohibits loud and unreasonable noise between the hours of 10:00 PM and 7:00 AM Sunday through

Thursday and between 12:00 midnight and 7:00 AM Friday and Saturday. Loud and unreasonable noise is defined as sound which is clearly discernible at a distance of 100 feet from the property line of the property upon which it is broadcast or sound which is above 60 dBA at the edge of the property line upon which the sounds is broadcast. The City does not have any code requirements related to noise from construction activities but the GMC noise regulations would apply to construction noise.

4.7.3 Impact Analysis

Methodology and Significance Thresholds

CEQA Guidelines Appendix G. In accordance with Appendix G of the 2017 CEQA Guidelines, impacts would be potentially significant if the proposed project would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive ground-borne vibration or groundborne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- 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, exposure of people residing or working in the project area to excessive noise levels; or
- For a project within the vicinity of private airstrip, would the project expose people residing or working the project area to excessive noise levels.

City of Goleta Environmental Thresholds and Guideline Manual. Pursuant to the City's Environmental Thresholds and Guidelines Manual, impacts would be significant if the proposed project would result in:

- Noise levels in excess of 65 dBA CNEL that could affect sensitive receptors;
- Exposure to outdoor noise levels in excess of 65 dBA CNEL and/or exposure to interior noise levels in excess of 45 dBA CNEL.
- A substantial increase in ambient noise levels for noise-sensitive receptors generally presumed to be an increase to 65 dBA CNEL or more; or a

substantial increase in ambient noise levels for noise-sensitive receptors that is less than 65 dBA CNEL, as determined on a case-by-case basis; or

- Noise from grading and construction activity proposed within 1,600 feet of sensitive receptors, including schools, residential development, commercial lodging facilities, hospitals, or care facilities.

With respect to traffic noise increases due to project-generated traffic, impacts are considered significant if traffic-generated noise associated with development of the project would result in exposure of sensitive receptors to unacceptable noise levels. The May 2006 FTA document Transit Noise and Vibration Impact Assessment recommendations were used to determine whether or not increases in roadway noise would be considered significant. The allowable noise exposure increase changes with increasing noise exposure, such that lower ambient noise levels have a higher allowable noise exposure increase. Table 4.7-3 shows the significance thresholds for increases in traffic-related noise levels caused by the project. If residential development or other sensitive receptors would be exposed to traffic noise increases exceeding the FTA criteria, impacts would be considered significant.

Table 4.7-3. Significance of Changes in Operational Roadway Noise Exposure

Ldn or Leq in dBA	
Existing Noise Exposure	**Allowable Noise Exposure Increase**
45-50	7
50-55	5
55-60	3
60-65	2
65-75	1
75+	0

Source: Federal Transit Administration 2006.

Noise impacts found to be less than significant in the certified Project Mitigated Negative Declaration are listed in Appendix B.

Project Impacts and Mitigation Measures

Impact NOI-1: Short-term Construction Noise. Construction of the Project would result in the generation of short-term noise levels potentially impacting adjacent sensitive receptors. Though standard mitigation measures would reduce this impact, rotary auger drilling activities would generate significant and unavoidable impacts (Class I).

Construction equipment noise would result in short-term impacts to sensitive noise receptors on Sandpiper Golf Club and on adjacent residents of the Hideaway

Townhouses to the east. The slope stabilization, grading and site preparation phase of the Project would generate the highest construction sound levels due to the operation of heavy equipment. Peak sound levels associated with heavy equipment typically range between 75 and 95 dBA at 50 feet from the source. Typical major sources of noise during the Project's grading and earthwork period and their estimated sound levels at 50 feet are: tractors (75 to 95 dBA), loaders (75 to 85 dBA), compactors (75dBA), trucks (75 to 95 dBA), and backhoes (75 to 95 dBA) (FHWA 2017). While construction would occur during normal workday hours, not all construction equipment would be operated simultaneously. Peak sound levels associated with construction equipment would occur sporadically without the work day.

Rotary auger drilling of 24-inch concrete filler piles and 36-inch reinforced concrete piles associated with construction of the slope stabilization wall on the north Project site boundary would generate noise levels of up to 185 dB measured at 50 feet from the source (FHWA 2017) over the 25 working days to complete this work (Mark Nye, personal communication 2018).

The City's Environmental Thresholds and Guidelines Manual addresses construction noise and identifies typical restrictions to reduce this potential impact. These Guidelines generally consider construction noise impacts to be potentially significant to any residence or sensitive receptor located within 1,600 feet (City of Goleta 2002). Since residential and sensitive land uses occur within a distance of at least 25 feet, and assuming an attenuation of 6 dB noise intensity with doubling of the distance from the source, the Rotary auger drilling noise levels would be over 85 dB. The other non-drilling peak construction-related noise levels at the Project site could reach or exceed 98 dBA. These short-term construction noise levels would exceed 65 dB at the project boundary and would therefore be significant.

Per established City guidelines, given construction noise would exceed 65 dBA for nearby sensitive receptors, construction of the Project shall be limited to weekdays between the hours of 8:00 AM and 5:00 PM only to reduce impacts to sensitive receptors, consistent with mitigation measure N-1(a). However, given Project construction has the potential to expose nearby residential and sensitive receptors to noise levels in excess of 95 dBA during daytime hours, potential impacts from short-term construction noise would be significant.

Mitigation Measures and Residual Impacts

Construction activity associated with the proposed Project would occur within 1,600 feet of sensitive receptors and would therefore potentially generate noise exceeding City Noise Element standards. The following mitigation measures would be required to mitigate construction-related noise.

> **NOI-1(a). Construction Timing.** Pursuant to City of Goleta guidelines, all noise- generating construction activities shall be limited to Monday through

Friday, 8:00 a.m. to 5:00 p.m. Construction shall not be allowed on weekends and state holidays except for extenuating circumstances (in the event of an emergency, for example) on a case by case basis at the discretion of the Director of Planning and Environmental Services. The applicant shall post the allowed hours of operation near the entrance to the site, so that workers on site are aware of this limitation.

> **Plan Requirements and Timing:** Two signs stating these restrictions shall be provided by the applicant and posted on site prior to commencement of construction. Signs shall be a minimum of 24" x 48" in size. The signs shall be in place prior to beginning of and throughout all grading and construction activities. Violations may result in suspension of permits.
>
> **Monitoring:** City staff shall monitor compliance with restrictions on construction hours, and shall investigate and respond to all noncompliance complaints.

NOI-1(b). Temporary Sound Barriers. Temporary noise barriers shall be used and located as needed to block line-of-sight between project construction equipment, particularly soldier wall drilling, and the eastern property boundary (Hideaway Townhouses) to feasibly reduce effects of construction noise on these sensitive receptors.

> **Plan Requirements and Timing:** The sound walls shall be designed by a registered engineer and included on the grading plan, and reviewed and approved by City staff prior to approval of any Land Use Permit for the Project. The measure shall be implemented during construction.
>
> **Monitoring:** City staff shall verify as to plan in the field during construction.

NOI-1(c). Noise Attenuation Measures. The following measures shall be incorporated into grading and building plan specifications to reduce the impact of construction noise:

a) All construction equipment shall have properly maintained sound- control devices, and no equipment shall have an unmuffled exhaust system.

b) The applicant shall ensure that contractors implement appropriate additional noise mitigation measures including but not limited to changing the location of stationary construction equipment, shutting off idling equipment, and installing acoustic barriers around significant sources of stationary construction noise.

Plan Requirements and Timing: All of the above mitigation measures shall be noted on all plans submitted for any Land Use Permit and/or building permit(s).

Monitoring: City staff shall verify compliance prior to any Land Use Permit or building permit(s) issuance as well as conducting periodic field inspections.

Implementation of these standard noise construction mitigation measures would reduce the residual impact on noise. Caltrans (2009) characterizes feasible attenuation of noise by a sound wall to be a reduction of 5 dBA. Therefore, the intensity of rotary drilling activities would remain over 80 dbA, and other standard construction equipment would generate attenuated noise levels of over 90 dbA as experienced by the nearest sensitive receptors, even with the construction of short-term sound walls. Therefore, short-term construction noise would remain a *significant, unavoidable impact* (Class I). .

Impact NOI-2: Operational Noise. Long-term noise impacts associated with the Project would incrementally increase the frequency of very short duration peak nuisance noise occurrences for area residents, but would not result in the exceedance of established City noise thresholds.

Daily Fire Station Facility Operations. Operation of the fire station would result in the generation of noise levels above existing site conditions, and which would be perceived by surrounding uses. The proposed station would be occupied and operated on a 24-hour/7-day a week schedule. However, the majority of routine operations at the fire station would occur within the typically defined daytime hours (7:00 AM to 7:00 PM). Noise generating uses at fire stations most typically include vehicle traffic (both firefighters commuting to and from work and fire engines conducting routine operations), and normal operational noise such as facility and equipment maintenance and outdoor communications associated with departmental operations during daylight hours.

A horizontal hose drying rack/table, approximately 3-feet high, in the northeast corner of the site, would have slats along the entire top of the system allowing fire hose to be laid flat on top for drying. The hose would stay stationary during the drying process with no “clanging” of brass couplings producing unwanted noise for the area (Captain Glenn Fidler, SBCFD, personal communication 2018). In addition, since preparation of the 2010 Fire Station #10 Conceptual Site Feasibility/Site Selection Plan Initial Study (Appendix B), on-site fire station noise generating activities have been redesigned westward to reduce potential effects on the Hideaway Townhouses site. For instance, the Communication Tower has been moved westward by 21 feet; the exercise room and fuel station have been moved to the west side of the building; and the trash enclosure doors are not oriented to the south rather than to the east. Based on typical fire station operations and revised site design, the routine daily operations of the proposed fire station would not substantially increase ambient noise levels in the area or exposure

nearby residents or sensitive noise-receptors to exterior noise levels in excess of adopted City standards (i.e., greater than 65 dBA CNEL)., resulting in *adverse, but less than significant* impacts from operation noise (Class III).

Use of Exterior Address Systems. In addition to standard operations, operation of the fire station would likely involve the use of an exterior address (loudspeaker) system that would create new nuisance noise. Use of the exterior loudspeaker system would coincide most with responses to emergency calls, but could include use during training activities. Recent loudspeaker measures taken at the Cate School property in Carpinteria show a reading of 90 dBA at 50 feet (County of Santa Barbara 2016). Similar loudspeaker measurements would result from use of the exterior loudspeaker systems for the Fire Station 10 facility. The loudspeaker would be located adjacent to the apparatus bays, approximately 150 feet west of the residential development to the east. Given the attenuation of sound by 6 dB with doubling of the distance from the source, the loudspeaker noise levels could be experienced at 81 dBA at the property boundary. However, loudspeaker system use would be infrequent. The noise would be restricted to daytime hours described above. The loudspeaker noise would be of a relatively short duration (i.e., generally less than 30 seconds). The magnitude of the noise, while briefly very high in exterior living areas, would be substantially reduced in interior living areas through existing construction. Average long-term noise levels in the neighborhood would not substantially change and the CNEL for the vicinity would not exceed 65 dBA. Therefore, noise levels resulting from this operational aspect of the Project would not result in significant, continuous levels of nuisance noise on adjacent land uses; noise impacts would be *adverse, but less than significant* (Class III).

Operation of Emergency Generator. Further, operation of the proposed station would involve the use of an estimated 150-kilowatt emergency generator. Under the existing 2010 Fire Station #10 Conceptual Site Feasibility/Site Selection Plan Initial Study, use of the emergency power generator was identified as a potentially significant, if not intermittent, impact given the generation of noise levels of 100 dBA measured 3 feet from the source (Appendix B). At a distance of approximately 215 feet from the nearest sensitive receptor at the Sandpiper Golf Club and 315 feet from the residences of the Hideaway Townhomes, noise levels generated by the emergency generator would be approximately 64 dBA and 60 dBA, respectively. Routine inspection and maintenance of the emergency generator would occur compliant with National Fire Protection Association (NFPA) Code 110, *Standard for Emergency and Standby Power Systems,* with monthly testing occurring under load for a 30-minute duration and a more intensive annual test for 2 hours (Todd Jesperson, personal communication 2017). *A*s part of the proposed Project, the proposed emergency generator unit would be completely shielded by a Level 2 sound-attenuated enclosure that would include a roof (see Section 2.5.2).[1] Therefore, it is not anticipated that infrequent and short-duration testing of

[1] Sound level attenuation of a 20 to 150 kW emergency generator with a Level 2 enclosure would result in approximately 72 to 75 dBA at a distance of 7 meters (23 feet). From a distance of 200 feet, use of a Level 2 sound attenuation enclosure would reduce

the fully enclosed emergency generator would expose nearby residents or sensitive noise- receptors to a substantial increase in ambient noise levels in excess of adopted City standards and impacts are considered *adverse, but less than significant* (Class III).

Use of Emergency Sirens. Residents or other sensitive-noise receptors in the immediate vicinity of the proposed fire station would experience periodic exposure to sirens. The potential adverse effects of noise associated with the use of emergency vehicle sirens on the quality of life of nearby residents is often a concern in development of new fire stations. Part of this concern is related to the perception that fire stations would typically respond to many emergencies with multiple emergency vehicles leaving the site daily. Another perception is that emergency sirens are intentionally loud and such loud noise could disrupt quiet residential neighborhoods. These concerns are reflected in scoping comments received by the public which express concern over the effects of noise from sirens, particularly during nighttime hours (Appendix A).

In terms of *magnitude* of noise exposure, a typical siren emits approximately 100 dB at 100 feet (refer to Table 4.7-1 for comparisons of different noise levels). Since a decrease of about 3 dB occur with every doubling of distance from a mobile noise source (City Noise Thresholds), the residences and Sandpiper Golf Club, each within 150 feet of the fire station structure and engine bay, would experience peak short-duration *exterior* noise levels in the 95 to 100 dB range an average of five times per day. It should be noted that typical older residential construction would reduce typical short duration *interior* noise exposure to 75 to 80 dB, while more recent construction, such as the Hideaway Townhouses, or remodeled homes would have reduced interior noise effects.

Because emergency vehicle response is by nature rapid, the *duration* of exposure to these peak noise levels in the 95 to 100 dB range is estimated to last for a maximum of 10 seconds as emergency vehicles pause at the driveway exit, engage the siren and turn onto Hollister Avenue and accelerate rapidly away from the proposed Fire Station 10. Thus, residents of existing nearby homes would be exposed to very short-duration high noise levels for approximately 10 seconds an average of five times per day. Further, the typical practice for emergency vehicle use for the Santa Barbara County Fire Department is to use sirens to break traffic at intersections or warn drivers of the emergency vehicle approach when traffic is congested. Responses to nighttime emergency calls, when nuisance noise is most noticeable, routinely occur without the use of sirens. It should be noted that other homes and residents along Hollister Avenue and other routes used for emergency access would also be exposed to such noise levels, although the *magnitude* and *frequency* of this exposure would vary by distance from the road and proximity to Fire Station 10. The *duration* of such exposure would likely be less than the

sound levels by approximately 19 dB, for a noise level of 53 to 56 dBA at a distance of 200 feet. At a distance of 315 feet for a 150-kW emergency generator, sounds levels would be approximately 52 dB (Cummins Power Generation 2017).

projected 10 seconds for homes near proposed Fire Station 10 as the emergency vehicles would generally be assumed to be passing at full speed, with no time required for turning out of the driveway or accelerating.

A key focus of analysis with regard to noise is the potential for long-term exposure to higher noise levels (i.e., continuous, involuntary exposure for many hours per day over a long period of time) that may adversely affect human health. Because of this emphasis, adopted Federal, State and City regulations and standards typically focus on increases in long-term exposure to ongoing average noise levels rather than infrequent short-duration peak effects (refer to Section 4.7.2). Under these adopted standards, the increase of an average of five emergency vehicle trips per day would not be considered a significant impact because:

1) Average long-term noise levels in the neighborhood would not substantially change and the CNEL for the vicinity would not exceed 65 dBA, the accepted level for exterior noise in adopted City standards as a result of emergency vehicle and siren use at the proposed station;

2) The low *frequency* of siren use (an average of five per day) would not constitute a significant change in the existing noise environment;

3) The relatively short *duration* of the noise events (i.e., generally less than 10 seconds) would not substantially alter the existing noise environment; and

4) The *magnitude* of noise, while briefly very high in exterior living areas, would be substantially reduced in interior living areas through existing construction.

Therefore, noise impacts to residents and other sensitive receptors associated with use of sirens in response to emergencies are considered *adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impacts

As operation-related noise impacts affecting sensitive noise receptors would be less than significant, no mitigation measures would be required. Impacts would be *adverse, but less than significant* (Class III).

Impact NOI-3: Increase in Traffic Noise. Operation of the Project would result in increases in traffic and associated noise. However, associated increases in noise would be negligible and would not result in the exceedance of any adopted thresholds such that impacts would be adverse, but less than significant (Class III).

The proposed Project would incrementally increase traffic in the area, contributing to the area's noise levels. According to the Traffic Analysis, the Project is forecasted to generate 29 average daily trips (ADT), 7 AM peak hour trips and 1 PM peak hour trip (ATE 2017, see Appendix G). Traffic counts in the traffic analysis

show 6,200 ADT along Hollister Avenue east of Cathedral Oaks Road, and 3,200 ADT along Cathedral Oaks Road north of Calle Real. Given the existing traffic volumes, the addition of 20 ADT on Hollister Avenue and 4 ADT on Cathedral Oaks Road, or approximately 8 peak hour trips, would represent an incremental increase in traffic. This is significantly below the 40 percent increase that is estimated to raise noise levels by 2 dBA (Harris Miller & Hanson Inc. 2006). Therefore, the Project- related increases in noise would be negligible and would not exceed established significance thresholds. Noise impacts from operational traffic resulting from the proposed Project would therefore be *adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impacts

As impacts on noise would be less than significant, no mitigation measures would be required. Impacts would be *adverse, but less than significant* (Class III).

4.7.4 Cumulative Impacts

The Region of Influence for evaluating cumulative impacts on noise includes those areas in which related past, present, and reasonably probable projects would have the potential to contribute to increases in ambient noise levels within the area. Therefore, all related projects within the Project vicinity would be within the Region of Influence.

The proposed Project would include the development of approximately 1.21 acres to accommodate a new fire station. Overall, the Project would introduce some changes to ambient noise levels in the Project vicinity, mostly during construction phases of the proposed Project and during daytime operations. While construction phases of this Project may coincide with other projects planned in the vicinity, mitigation measures N-1(a), N-1(b), and N-1(c) would reduce construction-related noise consistent with City regulations. In addition, other projects planned in the vicinity would be subject to similar City regulations for mitigating construction noise. Further, the noise-control measures that have been incorporated into the proposed Project design discussed above under Impact N-2 in Section 4.7.3 would guide development of the proposed Project and would reduce exposure of nearby sensitive noise-receptors and adjoining land uses to operational noise levels. In addition, implementation of mitigation measure N-2 would reduce the Project's potential to generate excessive noise from facility operations. Long-term noise impacts in the Project vicinity would be of low frequency and short-duration in nature; therefore, anticipated long-term noise impacts would be unlikely to contribute to the cumulative effects of other pending and ongoing projects. Implementation of Mitigation Measures N-1(a), N-1(b), N-1(c), and N-2 would feasibly reduce the Project's contribution to cumulative impacts on the noise environment to *less than considerable.*

This page intentionally blank

4.8 PUBLIC SERVICES

This section analyzes the proposed Fire Station 10 Project's impacts on fire protection services. Since the proposed Project was determined in the Initial Study (Appendix B) not to have any adverse effects on additional public facilities for services (i.e., police protection, schools, parks, and libraries), such facilities do not require further study in this EIR.

4.8.1 Existing Setting

The 1.21-acre Project site is located in western City of Goleta (City) along Hollister Avenue, north of the Sandpiper Golf Club and east of the recently developed residential Hideaway complex. In addition to the Project site, western Goleta contains a number of dense housing developments, an elementary school, a large resort hotel, the public Sandpiper Golf Course, the Ellwood Bluffs, and an oil and gas processing facility.

Existing Fire Protection Services

Fire protection services for the City and portions of the surrounding unincorporated areas of the County are currently provided by the Santa Barbara County Fire Department (SBCFD), which currently operates out of three fire stations with the City (see also Figure 2-2). The SBCFD was formed in 1957 and is governed by the Fire Protection District Law of 1987 (Health and Safety Code §§ 13800, et seq.). The closest fire station to the Project site is Station #11, located at 6901 Frey Way, just off Storke Road and south of Hollister Avenue and the Camino Real Marketplace (approximately 2.2 miles away by City streets). Fire Station 11 houses six on-duty firefighters per shift serving an estimated population of 21,594 people for a firefighter to population ratio of 1:3,599 (City of Goleta 2006). Although the number of firefighters at Fire Station 11 (six per shift) does not currently meet the City's "ideal goal," as expressed in the General Plan, of providing at least one firefighter per 2,000 residents, the population served per firefighter is less than the maximum of 4,000 that can be adequately served. Per the City's General Plan, SBCFD currently provides a Citywide firefighter to population ratio of 1:4,909, which exceeds the City's minimum standard for fire protection services (City of Goleta 2006).

The SBCFD has implemented a dynamic deployment system for its fire engines, in addition to the traditional static deployment system from fire stations when the station's engine is in-house. Dynamic deployment allows for the dispatching of engines already on the road to emergency calls rather than dispatching by a station's "first in area," as has been the previous practice. Basically, dynamic deployment uses a Global Positioning System (GPS) to monitor the exact location of each engine in real time. Previously, when an engine was out on routine (nonemergency) activities, such as inspections or training, the engine company was considered in-service and its exact location at any given moment in time was not known to County Dispatch. However, with dynamic deployment using the

County's GPS, County dispatch has real-time information on the exact location of each engine at all times and can dispatch the closest, un-engaged engine to an emergency incident, regardless of which fire station's service area the call originates from (Ron Pepin, Captain, Santa Barbara County Fire Protection District, personal communications, May 16, 2013). This precludes the need for an in-service engine to have extended run times when another fire engine would be closer. The SBCFD has also added a battalion chief as the fourth firefighter on scene, in order to meet the two-in-two-out rule.

Although the City is served by three fire stations, response times to the western Goleta area, and particularly the unincorporated community of Winchester Canyon, are considered underserved with a longer response time than those called for by the National Fire Protection Association (NFPA) typical urban standard and the City's adopted standard of five (5) minutes. Western Goleta contains a number of dense housing developments, an elementary school, a large destination resort hotel, the public Sandpiper Golf Course, the Ellwood Bluffs, and an oil and gas processing facility. Because of these factors, the need for a fire station to serve western Goleta has long been documented as a priority by the City, the County of Santa Barbara (County), and SBCFD.

4.8.2 Regulatory Setting

State

California Fire Code. Chapter 5 of the 2007 California Fire Code includes requirements for new development regarding access for fire-fighting apparatus and personnel, and fire protection water supplies (fire-flow).

California Occupational Safety and Health Administration. The mandated California Occupational Safety and Health Administration (CalOSHA) requirement for firefighter safety, known as the two-in-two-out rule, is also applicable. This rule requires a minimum of two personnel to be available outside a structure prior to entry by firefighters to provide an immediate rescue for trapped or fallen firefighters, as well as immediate assistance in rescue operations.

Local

City of Goleta General Plan/Coastal Land Use Plan. The Goleta General Plan identifies three standards under Public Facilities Element Policy PF 3.1 with respect to the provision of fire protection services, which are derived from guidelines by the National Fire Protection Association (NFPA) and the Santa Barbara County Fire Protection District.

These standards include:

- A firefighter-to-population ratio of one firefighter on duty 24 hours a day for every 2,000 persons in population is considered "ideal," although a

countywide ratio of one firefighter per 4,000 population is the absolute minimum standard;

- A ratio of one engine company per 16,000 population, assuming four firefighters per station, represents the maximum population that the SBCFD has determined can be adequately served by a four-person crew; and
- A five-minute response time in urban areas.

The Goleta General Plan contains the following additional policies regarding adequacy of public services to serve new developments and which would apply to this Project:

- Public Facilities Element Policy PF 3.2 identifies the western portion of the City near Winchester Canyon as the most under-served area in Goleta, and establishes that the City shall provide a site consisting of approximately 2-acres of land for a proposed Fire Station 10 to serve this area of the City.
- Public Facilities Element PF 3.9 requires all proposals for remodeled development or new development within the City to be review for potential impacts on safety and demand for police services, and establishes design standards for buildings and streets to promote safe environments.
- Public Facilities Element PF 9.2 establishes limitations on the allowance of new development within the City until it can be demonstrated that all public facilities and services, including fire protection services, are adequate.

City of Goleta Coastal Inland Zoning Ordinance. The Inland Zoning Ordinance (IZO § 35-317.7(1)(d)), of Article 3, Chapter 35 of the Municipal Code (the City of Goleta Inland Zoning Ordinance) as adopted by the Goleta Municipal Code, includes a requirement for finding of adequate public services to serve new developments, before approval of a preliminary or final development plan.

City of Goleta Development Impact Fees. The City and the area school districts have implemented separate Development Impact Fees as authorized by law. The City's fees include recreation, transportation, fire, library, public administration, and police fees.

4.8.3 Impact Analysis

Methodology and Significance Thresholds

CEQA Guidelines Appendix G. In accordance with Appendix G of the 2017 CEQA Guidelines, impacts to public services would be potentially significant if the proposed project would 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 following public services:

- Fire protection
- Police protection
- Schools
- Libraries
- Other public facilities

City of Goleta Environmental Thresholds and Guidelines Manual. The City's adopted Environmental Thresholds and Guidelines Manual provides specific thresholds for conducting CEQA analysis, and provides guidance for assessing the significance of project impacts on public safety, schools, and solid waste. However, the City has not adopted thresholds for determining the significance of a project involving the development of a fire station and its effects on fire protection services. In the absence of such thresholds, the thresholds listed in Appendix G of the CEQA Guidelines would apply to the proposed Project. Furthermore, the fire protection criteria in the City's General Plan, as discussed in the Regulatory Setting above, provide a guideline that is acknowledged in the impact analysis; however, these criteria do not serve as adopted thresholds.

Project Impacts and Mitigation Measures

Impact *PS-1: The proposed Project would increase the fire protection services from the Santa Barbara County Fire Protection District serving the western Goleta area, and improve service ratios and response times, resulting in a beneficial impact (Class IV).*

The proposed Project involves the development of a new 11,600 sf single-story, three apparatus bay fire station to be owned and maintained by the City, but staffed and operated by SBCFD. The station would be staffed by three firefighters at all times, with up to six staff on-site simultaneously between shifts (Martin Johnson, personal communication 2017). As targeted in the City's General Plan, the proposed Project would provide fire protection service within a 5-minute response time to much of the western Goleta area, eliminating existing response time deficiencies to this area and improving Citywide firefighter to population ratios to 1:3,681, bringing the service ratio to a level within the City's minimum service standard. Given that the Project would involve the construction and operation of a new fire station which would improve existing fire protection services, implementation would entail the development of a new governmental facilities; however, impacts of the construction and operation of the Project have been analyzed throughout this report and are determined to be less than significant with implementation of feasible mitigation. Therefore, implementation of the proposed Project would have a *beneficial impact* (Class IV) on fire protection services for the City and surrounding communities.

Mitigation Measures and Residual Impacts

As impacts on public services would be less than significant, no mitigation measures would be required.

There would be no residual impact on public services.

4.8.4 Cumulative Impacts

The Region of Influence for evaluating cumulative impacts on public services, particularly fire protection services, includes those areas in which related past, present, and reasonably probable projects would have the potential to contribute to additional demand for City fire protection services. Therefore, all related projects within the City that generate additional demand for fire protection services, including residential and commercial development, would be within the Region of Influence.

Cumulative development in and around the City would add 2,746 residential units and more than 1,559,000 square feet of new commercial and industrial space (see Table 3-1 in Section 3.0). Additional development would be located on infill sites throughout the City currently serviced by existing SBCFD facilities. Based on City average household size (2.72 persons per household; City of Goleta 2014), the addition of 826 units may result in a potential increase in City population of 2,247 persons, further increasing the City's firefighter to population service ratio to 1:5,158. However, with the addition of the Fire Station 10 Project and these cumulative developments, the City's firefighter to population ratio would to be 1:3,869 which is within the City's minimum acceptable fire protection service standard.

Given the proposed Project would serve to enhance fire protection services under cumulative conditions, the Project is not determined to contribute towards a cumulative impact on fire protection services, and would have a direct beneficial impact to fire protection services under cumulative conditions.

This page intentionally blank

4.9 TRANSPORTATION/CIRCULATION

This section analyzes the proposed Fire Station 10 Project's impacts to the local transportation and circulation system, including long-term impacts associated with operation of the proposed Project. The analysis is based primarily on a Traffic and Circulation Study for the Project prepared by Associated Traffic Engineers (ATE) (included in its entirety in Appendix G), dated December 2017.

4.9.1 Existing Setting

The Project site is located north of Hollister Avenue, east of Cathedral Oaks Road, and south of the U.S. Highway 101 (U.S. 101) and Union Pacific Railroad (UPRR) in the western limits of the City of Goleta (City). The 1.21-acre site is currently vacant and undeveloped. The proposed Project would involve construction of a new 11,600 square foot fire station with three apparatus bays, a garage, a public meeting room and staff parking areas. Access to the fire station would be provided via two new driveways on Hollister Avenue.

Surrounding Circulation Network

The circulation network surrounding the Project site is comprised of regional highways, arterial streets, collector roads, and the UPRR. The following text briefly describes the key roadways in the Project vicinity.

U.S. 101. U.S. 101 is located north of the Project site and is a multi-lane interstate freeway serving the Pacific Coast between Los Angeles and the state of Washington. The freeway is a principal route between the City and the adjacent cities of Santa Barbara, Carpinteria, and Ventura to the south; and the cities of Buellton and Santa Maria to the north. Access to U.S. 101 from the Project site is provided via Cathedral Oaks Road from Hollister Avenue.

Hollister Avenue. Hollister Avenue is located along the southern frontage of the Project site, and is a 2- to 4-lane east-west arterial roadway that extends through the Goleta Valley area from State Route 154 on the east to the Bacara Hotel on the west. This roadway serves as the primary east-west surface street route through Goleta. Adjacent to the Project site, Hollister Avenue contains two travel lanes with Class II bike lanes on either side of the street and "No Parking" on the south side of the street that will be matched along the project frontage (ATE 2017, see Appendix G; City of Goleta 2006a).

Cathedral Oaks Road. Cathedral Oaks Road is located west of the project site, is a 2- to 4-lane arterial roadway that extends north from Hollister Avenue and then proceeds easterly across Goleta Valley. This roadway provides a secondary east-west surface street route through Goleta. The section of Cathedral Oaks road in the Project area contains two travel lanes with Class II bike lanes on either side of the street (ATE 2017, see Appendix G; City of Goleta 2006a).

Existing Traffic Volumes and Levels of Service

Existing Roadway Segment Volumes. The existing average daily traffic (ADT) volumes for the Project area roadway segments are presented in Figure 4.9-1. Existing roadway volumes were obtained from count data collected by the City and new counts conducted in November of 2017 by ATE (see Appendix G). The operational characteristics of the Project area roadways were analyzed based on the City's "Acceptable Capacity" rating system. Table 4.9-1 shows the Existing ADT volumes and the City's Acceptable Capacity thresholds for Project area roadways.

Table 4.9-1. Existing Roadway Operations

Roadway Segments	Roadway Classification	Geometry	Acceptable Capacity	Existing ADT
Hollister Avenue e/o Cathedral Oaks Road	Major Arterial	2 Lanes	14,300	6,200
Cathedral Oaks Road n/o Calle Real	Major Arterial	2 Lanes	14,300	3,200
U.S. 101 at Hollister Avenue/Cathedral Oaks Road	Freeway	4 Lanes	--	34,800[1]

[1] Reported as annual average daily trips (AADT).
Source: ATE 2017, see Appendix G; Caltrans 2017.

Existing Intersection Volumes. Existing AM and PM peak hour traffic volumes for the Project area intersections were obtained from traffic counts conducted in November of 2017 by ATE (see Appendix G). AM peak hour is 7:30AM to 8:30AM; PM peak hour is 4:45PM to 5:45PM. Because traffic flow on urban arterials is most constrained at intersections, detailed traffic flow analyses focus on the operating conditions of critical intersections during peak travel periods. Figures 4.9-2 and 4.9-3, respectively, present the existing AM and PM peak hour traffic volumes, as well as existing intersection lane geometries and traffic controls.

Level of Service Methodology. In rating intersection operation, "Levels of Service" (LOS) A through F are used, with LOS A indicating free flow operations and LOS F indicating congested operations. The City has established LOS C as the minimum acceptable operating standard for intersections. Levels of service for the stop-controlled intersections were calculated using the Highway Capacity Manual (HCM) methodology pursuant to City and California Department of Transportation (Caltrans) standards. The HCM methodology determines LOS based on the average stopped delay per vehicle at the intersection. Table 4.9-2 lists the Existing LOS for the Project area intersections.

Table 4.9-2. Existing Intersection LOS

Intersection	Control	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
U.S. 101 NB Ramp-Calle Real/Winchester Canyon Road	All-way Stop	8.5 sec	A	10.0 sec	A
Calle Real/Cathedral Oaks Road	All-way Stop	13.6 sec	B	11.5 sec	B
U.S. 101 SB Ramps/Cathedral Oaks Road	Two-way Stop	9.7 sec	A	10.2 sec	B
Hollister Avenue/Cathedral Oaks Road	All-way Stop	11.3 sec	B	11.7 sec	B

Source: ATE 2017, see Appendix G.

The data presented in Table 4.9-2 show that the Project area intersections currently operate acceptably in the LOS A-B range.

Existing Transit System

The Project area is served by the Santa Barbara Metropolitan Transit District (MTD), which serves much of the southern coastal Santa Barbara County. Transit service to the Project area and greater Ellwood/Winchester Canyon area is provided via MTD Line 25, providing a connection between Winchester Canyon north of U.S. 101, Ellwood, and the Camino Real Marketplace. The transit line typically operates on 30-minute headways during weekday hours, and 1-hour headways Saturday and Sunday. The route supports a monthly ridership of approximately 5,500 and an annual ridership of approximately 61,000 (MTD 2017a, 2017b). A bus stop for this route is located on either side of Hollister Avenue at the Project site. In addition, as previously mentioned, Class II bike lanes are present along Hollister Avenue and Cathedral Oaks Road. Passenger rail transportation services are provided along UPRR in the Project area by the National Railroad Passenger Corporation (Amtrak). The nearest station to the Project site is located approximately 4 miles east.

4.9.2 Regulatory Setting

State

Senate Bill (SB) 743 (2013). To further the state's commitment to the goals of SB 375, Assembly Bill (AB) 32, and AB 1358, SB 743 adds Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, to Division 13 (Section 21099) of the Public Resources Code. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of greenhouse gas (GHG) emissions, creation of multimodal networks, and promotion of a mix of land uses.

Pursuant to SB 743, the Office of Planning Research (OPR) released a Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in January 2016. OPR's Draft of Updates proposes vehicle miles traveled (VMT) as the replacement metric for LOS in the context of CEQA. While OPR emphasizes that a lead agency has the discretionary authority to establish thresholds of significance, the Draft of Updates suggest criteria that indicate when a project may have a significant, or less than significant, transportation impact on the environment. For instance, a project that results in VMTs greater than the regional average for the land use type (e.g., residential, employment, commercial) may indicate a significant impact. Alternatively, a project may have a less than significant impact if it is located within 0.5 mile of an existing major transit stop, or results in a net decrease in VMTs compared to existing conditions.

It is anticipated that regulatory language changes to CEQA will be adopted in 2018 by the State Natural Resources Agency and that statewide implementation will occur on January 1, 2020.

Local

City of Goleta General Plan/Coastal Land Use Plan Transportation Element (2006). The General Plan Transportation Element guides the continued development and improvement of the transportation system to support land uses planned in the Land Use Element through adopting policies, plans, and standards for the existing and planned circulation system.

The following are City General Plan Transportation Element policies which would apply to the Project:

- Transportation Element Policy TE 1.6 requires as a condition of approval for all new non-residential development projects to provide improvements that will reduce the use of single-occupancy vehicles as determined appropriate by the City.
- Transportation Element Policy TE 3.3 establishes criteria and standards which apply to roads designated as major arterials. These criteria and standards include design standards for providing access to abutting properties and the development of driveways or other ingress/egress to maximize safety and functionality for traffic.
- Transportation Element Policy TE 4.1 sets a standard of LOS C for City roadways and intersections.

4.9.3 Impact Analysis

Methodology and Significance Thresholds

CEQA Guidelines Appendix G. In accordance with Appendix G of the 2017 CEQA Guidelines, impacts to transportation and the circulation environment would be potentially significant if the proposed project would result in:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Conflict with an applicable congestion management program, including but not limited to LOS standards and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that results in substantial risks;
- Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; and/or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease performance or safety of such facilities.

City of Goleta Environmental Thresholds and Guidelines Manual. Pursuant to the City's Environmental Thresholds and Guidelines Manual, impacts to transportation and the circulation environment would be significant if the proposed project would result in:

- The addition of project traffic to an intersection increases the volume to capacity (V/C) ratio by the value provided below or sends at least 5, 10, or 15 trips to a LOS F, E, or D.

Table 4.9-3. Significant Changes in LOS or Evaluating Project Impacts

Intersection LOS (Including Project)	Increase in V/C or Trips Greater Than
LOS A	0.20
LOS B	0.15
LOS C	0.10
OR THE ADDITION OF:	
LOS D	15 TRIPS
LOS E	10 TRIPS
LOS F	5 TRIPS

Source: City of Goleta 2002.

- Project access to a major road or arterial road would require a driveway that would create an unsafe situation or a new traffic signal or major revisions to an existing traffic signal.

- Project adds traffic to a roadway that has design features (e.g., narrow width, road side ditches, sharp curves, poor sight distance, inadequate pavement structure) or receives use which would be incompatible with substantial increases in traffic (e.g., rural road with use by farm equipment, livestock, horseback riding, or residential roads with heavy pedestrian or recreational use, etc.) that will become potential safety problems with the addition of project or cumulative traffic. Exceedance of the roadways designated Circulation Element Capacity may indicate the potential for the occurrence of the above impacts.
- Project traffic would utilize a substantial portion of an intersection(s) capacity where the intersection is currently operating at acceptable levels of service (A-C) but with cumulative traffic would degrade to or approach LOS D (V/C 0.80) or lower. Substantial is defined as a minimum change for 0.03 for intersections which would operate from 0.80 to 0.85 and a change of 0.02 for intersections which would operate from 0.86 to 0.90 and 0.01 for intersections at anything lower.

In addition to the CEQA impact thresholds, the City has developed the administrative policy of defining a significant roadway impact if a project would increase traffic volumes by more than 1.0 percent (either project-specific or project contribution to cumulative impacts) on roadways that currently exceed Acceptable Capacity or are forecast to exceed the Acceptable Capacity under cumulative conditions.

Project Impacts and Mitigation Measures

Impact TRANS-1: ***Implementation of the Project would result in the generation of negligible new traffic that would result in less than significant decreases in existing operations.***

Project Trip Generation. Trip generation estimates were developed for the Project based on operational information provided by staff at the Santa Barbara County Fire Department since there are no published trip generation studies for fire stations. The key assumptions used for the trip generation analysis are as follows:

- 3 staff arrive and 3 staff depart during the AM peak hour;
- 5 fire engine calls per day;
- 3 miscellaneous trips per day (visitors, deliveries, errands, etc.);
- Public meeting room used 13 times per peak month (2-7 cars per meeting).

Table 4.9-4 summarizes the trip generation estimates developed for the Project. As shown, the Project would generate 29 ADT, including 7 trips in the AM peak hour and 2 trips in the PM peak hour.

Table 4.9-4. Project Trip Generation

Project Component	Unit	ADT	AM Peak Hour Trips	PM Peak Hour Trips
Staff Trips	3 Staff	6	6	0
Fire Engine Calls	5 Calls	10	1	1
Misc. Trips	3 Trips	6	0	0
Public Meeting Room	13/Month	7	0	1
Total		**29**	**7**	**2**

Source: ATE 2017, see Appendix G.

Project Trip Distribution. Traffic distribution and assignment patterns for the traffic generated by the Project were developed based on existing traffic patterns and the anticipated service area for the new fire station. The Project's traffic was distributed to the local roadway system as described in Table 4.9-5. Please refer to Appendix G for a map of the proposed Project traffic distribution.

Table 4.9-5. Project Trip Distribution Percentages

Origin/Destination	Direction	Distribution %
U.S. 101	East	45%
	West	10%
Hollister Avenue	East	30%
Cathedral Oaks Road	North	15%
Total		**100%**

Source: ATE 2017, see Appendix G.

Roadway Operations. The Existing and Existing + Project volumes and Acceptable Capacities for the Project area roadways are presented in Table 4.9-6. As shown, the Project area roadways would continue to operate within their Acceptable Capacities with the addition of Project traffic and impacts to roadway operations would be *adverse, but less than significant* (Class III).

Table 4.9-6. Existing and Existing + Project Roadway Operations

Roadway Segment	Average Daily Trips				Project Impact?
	Acceptable Capacity	Existing ADT	Project Added ADT	Existing + Project ADT	
Hollister Avenue e/o Cathedral Oaks Road	14,300	6,200	+20	6,220	No
Cathedral Oaks Road n/o Calle Real	14,300	3,200	+4	3,204	No

Source: ATE 2017, see Appendix G.

Intersection Operations. The existing level of service, project-added traffic volumes, and potential significant impacts from Existing + Project peak hour traffic volumes for the Project area intersections are presented in Tables 4.9-7 and 4.9-8. As shown, the Project would add a maximum of 5 trips during the AM peak hour and 1 trip during the PM peak hour to the Project area intersections, which would operate acceptably at LOS B or better. The Project would not generate significant impacts based on City thresholds, and impacts would be *adverse, but less than significant* (Class III).

Table 4.9-7. Existing Intersection Operations and Project-Added Traffic – AM Peak Hour

Intersection	Existing		Project Added	
	Delay	LOS	Trips	Impact?
Calle Real/Winchester Canyon Road	8.5 sec	A	1	No
Calle Real/Cathedral Oaks Road	13.6 sec	B	3	No
U.S. 101 SB Ramps/Cathedral Oaks Road	9.7 sec	A	5	No
Hollister Avenue/Cathedral Oaks Road	11.3 sec	B	5	No

Source: ATE 2017, see Appendix G.

Table 4.9-8. Existing Intersection Operations and Project-Added Traffic – PM Peak Hour

Intersection	Existing		Project Added	
	Delay	LOS	Trips	Impact?
Calle Real – U.S. 101 NB Ramps/Winchester Canyon Road	10.0 sec	B	0	No
Calle Real/Cathedral Oaks Road	11.5 sec	B	0	No
U.S. 101 SB Ramps/Cathedral Oaks Road	10.2 sec	B	1	No
Hollister Avenue/Cathedral Oaks Road	11.7 sec	B	1	No

Source: ATE 2017, see Appendix G.

Mitigation Measures and Residual Impacts

As impacts on transportation would be less than significant, no mitigation measures would be required.

Residual impacts would be *adverse, but less than significant* (Class III).

Impact TRANS-2: *Implementation of the Project would result in the development of two new driveways along a major arterial roadway. Required sight distance stopping lengths are adequate and would not result in unsafe roadway conditions.*

As shown on Figure 2-8 in Section 2.0, *Project Description,* access for the fire station is proposed via two driveways on Hollister Avenue. A sight distance evaluation was prepared by ATE for the proposed Project as part of the Traffic and

Circulation Study to determine if adequate sight distances are provided, as reviewed below.

Sight Distance Criteria. The driver of a vehicle departing the Project driveways should have an unobstructed view along Hollister Avenue sufficient in length to anticipate and avoid potential collisions. The stopping sight distance standards in the Caltrans Highway Design Manual were used to determine minimum sight distance requirements for the proposed fire station driveways. Given that the adjacent intersection of Hollister Avenue and Cathedral Oaks Road is controlled by all-way stop signs, a 25 mile-per-hour (MPH) design speed was used as the sight standard for vehicles looking to the west. The Caltrans stopping sight distance standard for 25 PMH is 150 feet. The speed limit on Hollister Avenue east of the site is 45 MPH. The sight distance for 45 MPH is 360 feet.

Western Apparatus Bay Driveway. The sight distance looking west from the public driveway extends past the Hollister Avenue/Cathedral Oaks Road intersection which is 375 feet away, and thus exceeds the 150-foot minimum stopping sight distance requirement. Hollister Avenue has both a horizontal and vertical curve east of the Project site. The sight distance looking to the east from the public driveway was measured at 530 feet, which exceeds the minimum stopping sight distance requirement of 360 feet. Figure 4.9-1 illustrate the sight distances looking from the western apparatus bay driveway.

Eastern Public Driveway. The sight distance looking west from the public driveway extends past the Hollister Avenue/Cathedral Oaks Road intersection which is 375 feet away, and thus exceeds the 150-foot minimum stopping sight distance requirement. Hollister Avenue has both a horizontal and vertical curve east of the Project site. The sight distance looking to the east from the public driveway was measured at 530 feet, which exceeds the minimum stopping sight distance requirement of 360 feet. Figure 4.9-2 illustrates the sight distances looking from the eastern public driveway.

Given adequate sight distance would be available for Project site ingress/egress, impacts associated with sight distance and traffic safety are considered *adverse, but less than significant* (Class III).

SIGHT DISTANCE LOOKING WEST

SIGHT DISTANCE LOOKING EAST

N

NOT TO SCALE
Source: ATE 2017.

amec foster wheeler

Western Apparatus Driveway Sight Distance
City of Goleta Fire Station 10

FIGURE 4.9-1

SIGHT DISTANCE LOOKING WEST

SIGHT DISTANCE LOOKING EAST

NOT TO SCALE
Source: ATE 2017.

East Public Driveway Sight Distance
City of Goleta Fire Station 10

FIGURE 4.9-2

Mitigation Measures and Residual Impacts

As impacts on transportation would be less than significant, no mitigation measures would be required.

Residual impacts would be *adverse, but less than significant* (Class III).

Impact TRANS-3: ***Implementation of the Project would modify the existing pedestrian, bicycle, and public transit configuration within the Project area and/or on the Hollister Avenue Project boundary. The provision of additional pedestrian sidewalks and crosswalks would be a beneficial impact (Class IV).***

Pedestrian Facilities

The Project frontage on Hollister Avenue is currently unimproved with no sidewalks. An existing sidewalk and walking trail exists along the southern side of Hollister Avenue, and a sidewalk over the Cathedral Oaks Road/U.S. 101 overpass exists on the west side of the bridge. However, no defined crosswalks exist for the intersection of Hollister Avenue/Cathedral Oaks Road. The Project would implement frontage improvements including a new sidewalk that would extend from the existing sidewalk located east of the site to Cathedral Oaks Road Overpass at the UPRR and U.S. 101. Frontage improvements would also include the installation of a curb ramp and pedestrian crosswalks across Cathedral Oaks Road west of the Project site and across Hollister Avenue extending southwest of the Cathedral Oaks Road/Hollister Avenue intersection. Proposed crosswalk improvements would support safe pedestrian access across Hollister Avenue and Cathedral Oaks Road, connecting existing pedestrian facilities to the proposed Project site pedestrian sidewalk improvements. Implementation of the Project and these improvements to pedestrian facilities would improve and promote safe pedestrian access when compared to existing conditions. Therefore, the Project would have a *beneficial effect* (Class IV) on pedestrian safety and access within the Hollister Avenue corridor adjacent to the Project site.

Bicycle Facilities

In addition to pedestrian improvements, implementation of the Project would affect existing bicycle facilities along Hollister Avenue. Along the Project's frontage, Hollister Avenue narrows and the westbound Class II bike lane becomes discontinuous, resulting in an approximate 165-foot gap in the existing Hollister Avenue westbound Class II bike lane to allow for vehicle merge into the Hollister Avenue westbound right-turn lane at the intersection of Hollister Avenue/Cathedral Oaks Road. As discussed in Section 2.0, *Project Description,* the Project would extend this bicycle lane along the Project site to ensure uninterrupted access westbound along Hollister Avenue.

Despite improvements to existing bicycle facilities along the Project site's frontage on Hollister Avenue, implementation of the Project could potentially disrupt bicyclist

or introduce new unsafe conditions at the site due to ingress and egress of vehicles from the Project site. However, as discussed under Impact T-2 above, site ingress and egress is designed with adequate sight distance. The Project would include a reconfiguration of the existing bike lane along the Hollister Avenue frontage, such that implementation of the Project and operation of the site would not have any impact on bicycle facilities or introduce substantial new unsafe conditions for these facilities (Class IV).

Transit Facilities

The Project site frontage on Hollister Avenue, and portions of the site itself, currently provides an unimproved bus stop for MTD Line 25. Implementation of the Project would retain the existing bus stop along the Project site frontage, between proposed ingress/egress points for both public and fire apparatus access (see Figure 2-8). While no curbside improvements are proposed as part of the Project, implementation would not have any effect on the operation, access to, or safety of this facility or other transit services within the Project vicinity (Class III).

Mitigation Measures and Residual Impacts

As no or beneficial impacts on pedestrian, bicycle, and public transit would occur, no mitigation measures would be required.

Residual impacts on transportation would be *beneficial* (Class IV).

Impact TRANS-4: ***Congestion Management Program Impacts. Project implementation would generate negligible net new traffic and would not conflict with applicable congestion management plans or programs.***

The Santa Barbara County Association of Governments (SBCAG) has developed a set of traffic impact thresholds to assess the impacts of land use decisions made by local jurisdictions on regional transportation facilities located within the Congestion Management Program (CMP) roadway system. According to the CMP Land Use Analysis Program, projects that generated less than 500 ADT and less than 50 peak hour trips are considered to be consistent with the CMP. Given the Project would generate only 29 ADT, 7 AM peak hour trips and 1 PM peak hour trips, the Project is considered consistent with the CMP and would have an *adverse, but less than significant* impact on CMP facilities within the area (Class III).

Mitigation Measures and Residual Impacts

As impacts on transportation would be less than significant, no mitigation measures would be required.

Residual impacts would be *adverse, but less than significant* (Class III).

Impact TRANS-5*: Short-Term Construction Traffic. Construction of the Project would generate short-term construction-related traffic along roads within the Project area. Short-term increases in construction-related traffic would be temporary, and would be feasibly mitigated by standard City conditions (Class II).*

As previously discussed and presented in Table 4.9-2 above, roadways and intersections in the Project area operate well above acceptable levels of service. While details regarding Project construction are presently unknown (i.e., construction phase schedule, number of construction workers, number and type of construction equipment, etc.), it is possible that some phases would occur concurrently or there would be gaps between phases. Regardless, given current amount of vehicle trips and available capacity, the addition of construction-related Project traffic along Hollister Avenue, Cathedral Oaks Road, and U.S. 101 would very likely be incremental (i.e., a less than one percent increase). For comparison, the recently proposed Montecito Fire Protection District Station 3 Site Acquisition and Construction Project, which involved the construction of a structurally larger 12,560 square foot fire station facility on a 2.55-acre site in Montecito, California, with a similar 12-month construction schedule, was identified as resulting in an estimated 65 ADT during peak construction activities. As part of the Traffic Impact Analysis and Final Environmental Impact Report prepared for this project, impacts to the transportation and circulation system from the increase in short-term traffic generated during project construction were determined not to result in significantly adverse effects (Montecito Fire Protection District 2016). Based on these values, an increase in vehicle traffic to Hollister Avenue or Cathedral Oaks Road would represent an increase in traffic by a negligible 1 percent and 2 percent, respectively. Such an increase in vehicle trips along these roadways would not result in a degradation of existing operations or decline in Project area intersection levels of service.

Short-term construction traffic could potentially result in short-term parking on nearby private roads and/or other off-site areas. Construction-related traffic impacts would be temporary and intermittent over a construction period spanning several years. Although these would be temporary effects and as construction-related traffic is not subject to requirements within the CMP, impacts would be *potentially significant but feasibly mitigated* (Class II).

Mitigation Measures and Residual Impacts

The following standard City mitigation measure would be implemented to reduce the short-term impact caused by construction worker parking.

> **TRANS-5.1: Construction Transportation and Parking Plan.** The applicant shall submit a construction transportation and parking plan that addresses construction traffic, routes, traffic management plans within the public right-of-way, and parking for construction workers. Parking shall be provided on-site or at additional off-site locations that are not on public streets.

Plan Requirements and Timing: The Construction Transportation and Parking Plan shall be reviewed and approved by City Public Works and Planning and Environmental Departments prior to issuance of final LUP and building permits.

Monitoring: City staff shall verify compliance with the approved Construction Transportation and Parking Plan per the approved plans during construction.

Residual impacts on transportation would be *adverse, but feasibly mitigated to less than significant* (Class II).

4.9.4 Cumulative Impacts

The Region of Influence for evaluating cumulative impacts on local and regional transportation and circulation includes those areas in which related past, present, and reasonably probable projects would have the potential to contribute to increases in traffic along Project area roadways or intersections, increases in demand for local alternative modes of transportation including MTD Line 25 bus services and Amtrak passenger rail service, increases in demand for parking, or result in conflict with the CMP. Therefore, all related projects that would generate new traffic or modify existing transportation facilities would be within the Region of Influence.

Cumulative traffic volumes were forecast for the Project area roadways and intersections assuming development of the approved and pending projects located within the Project area. Trip generation estimates were developed for the cumulative projects using the rates presented in the Institute of Transportation Engineers (ITE) Trip Generation report (see Appendix G for cumulative trip generation calculations). The traffic generated by the cumulative projects was added to the existing volumes based on the distribution percentages presented in existing traffic studies and environmental documents completed for developments in the Project area.

Cumulative Roadway Operations. Cumulative and Cumulative + Project roadway operations are summarized in Table 4.9-9 and identify cumulative impacts based on City impact thresholds. As shown, the Project area roadways are forecast to carry volumes within their Acceptable Capacity rating under Cumulative + Project traffic conditions. The Project would therefore not have a cumulative considerable contribution to a significant cumulative impact based on City impact thresholds.

Table 4.9-9. Cumulative + Project Roadway Operations

Roadway Segment	Average Daily Trips				
	Acceptable Capacity	Cumulative	Project Added	Cumulative + Project	Project Impact?
Hollister Avenue e/o Cathedral Oaks Road	14,300	6,210	+20	6,230	No
Cathedral Oaks Road n/o Calle Real	14,300	3,257	+4	3,261	No

Source: ATE 2017, see Appendix G.

Cumulative Intersection Impacts. A comparison of the Cumulative and Cumulative + Project levels of service and the identification of cumulative impacts based on City impact thresholds is provided in Tables 4.9-10 and 4.9-11. As shown, the Project would add a maximum of 5 tips during the AM peak hour and 1 trip during the PM peak hour to the Project area intersections which would continue to operate acceptably at LOS B or better with Cumulative volumes. The Project would therefore have a less than cumulatively considerable contribution to a significant cumulative impact based on City impact thresholds.

Table 4.9-10. Cumulative + Project Intersection Operations – AM Peak Hour

Intersection	Cumulative		Project Added	
	Delay	LOS	Trips	Impact?
Calle Real – U.S. 101 NB Ramps/Winchester Canyon Road	8.5 sec	A	1	No
Calle Real/Cathedral Oaks Road	13.7 sec	B	3	No
U.S. 101 SB Ramps/Cathedral Oaks Road	9.8 sec	A	5	No
Hollister Avenue/Cathedral Oaks Road	11.3 sec	B	5	No

Source: ATE 2017, see Appendix G.

Table 4.9-11. Cumulative + Project Intersection Operations – PM Peak Hour

Intersection	Cumulative		Project Added	
	Delay	LOS	Trips	Impact?
Calle Real – U.S. 101 NB Ramps/Winchester Canyon Road	10.1 sec	B	0	No
Calle Real/Cathedral Oaks Road	11.5 sec	B	0	No
U.S. 101 SB Ramps/Cathedral Oaks Road	10.2 sec	B	1	No
Hollister Avenue/Cathedral Oaks Road	11.7 sec	B	1	No

Source: ATE 2017, see Appendix G.

Cumulative Impacts to Pedestrian, Bicycle, and Transit Facilities. Implementation of the Project would generally improve pedestrian, bicycle, and transit facilities and services within the immediate Project vicinity or Region of Influence. Therefore, the Project would not have a considerable contribution to a significant cumulative impact on pedestrian, bicycle, and transit facilities.

Cumulative Impacts to Parking. As discussed under Impact T-4, the proposed Project would have no adverse effects on existing or future parking facilities or the demand for such facilities. Further, based on cumulative development proposed within the City, no projects are proposed within the immediate vicinity of the Project which would contribute additional demand for parking or have a cumulative effect on parking facilities or supplies with which the Project may have a considerable contribution. Therefore, the Project would not result in a cumulatively considerable contribution to a significant cumulative impact on parking facilities or demand for parking.

Cumulative CMP Impacts. Tables 4.9-10 and 4.9-11 indicate that the Project area intersections are forecast to operate at LOS A-B under Cumulative + Project conditions. Given that the Project would add at most, 5 peak hour trips to CMP facilities, Project-added traffic to these facilities would not be considered to result in an impact to CMP facilities or inconsistency with the CMP. Therefore, the proposed Project would not result in a cumulatively considerable contribution to a significant cumulative impact on CMP facilities.

This page intentionally blank

4.10 LESS THAN SIGNIFICANT ISSUES

This section provides analysis to supplement the conclusions of the certified 2010 Final Mitigated Declaration (Appendix B) for the site selection of the Fire Station 10 Project and its less than significant impacts. Provided first is a discussion of those resources identified in the Final Mitigated Declaration as having no potential to be adversely affected by the proposed Project, and these include: agricultural and forestry resources; mineral resources; and recreational resources. Those resources with which the Project may adversely, but not significantly impact are discussed in more detail below and include: air quality; energy conservation; greenhouse gases (GHGs); hydrology and water quality; and utilities and service systems.

4.10.1 Resources with No Potential to Be Adversely Affected

4.10.1.1 Agricultural and Forestry Resources

The Final Mitigated Negative Declaration did not identify any significant impacts to agricultural or timber resources and none are anticipated to result from implementation of the Project. As discussed in the Final Mitigated Declaration, the Project site is currently undeveloped but was previously developed as a service station (constructed in 1968 and demolished in 1993). Before the service station, the Project site was part of a much larger agricultural operation back when the Ellwood Mesa was under agricultural production. No such agricultural activities have occurred on-site in decades. The State has designated the property as "Urban and Built-Up Land" pursuant to its Farmland Mapping and Monitoring Program (FMMP 2018). As mapped by the United Stated Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), soils on-site consist of Milpitas-Positas fine sandy loam with a soil capability classification of IIIe (NRCS 2018a). Class III soils are considered to have severe limitations for agricultural production that reduce the choice of plants and/or require special conservation practices. A sub-capability designation of "e" denotes soils that are subject to erosion and have slow or very slow permeability. As such, such soils are not considered prime soils for agricultural production (NRCS 2018b). There are no forest resources on-site or within the Project vicinity. Therefore, implementation of the proposed Project would not adversely affect the quality or quantity of agricultural or timber resources either in the Project vicinity or citywide.

4.10.1.2 Mineral Resources

The Final Mitigated Negative Declaration did not identify any significant impacts to mineral resources and none are anticipated. As discussed in the Final Mitigated Declaration and previously stated above, from 1968 to 1993 the subject property was the site of a former service station. Before that it was part of larger agricultural operations in the Ellwood area. Since 1993 the site has been left in an undeveloped condition. There no known mineral resources of importance to the region or the state on-site and the Project site is not designated under the City's General

Plan/Coastal Land Use Plan (GP/CLUP) as an important mineral resource recovery site. Therefore, implementation of the proposed Project would not have any adverse effect on mineral resources.

4.10.1.3 Population/Housing

The Final Mitigated Negative Declaration did not identify any significant impacts to population and/or housing and none are anticipated to result from implementation of the Project. As discussed in the Final Mitigated Negative Declaration, staffing for the fire station would potentially involve the hiring and assignment to Fire Station 10 of approximately nine more full-time firefighters by the County, which would have a negligible effect on area employment. Hiring of nine new full-time employees may have potential to foster economic or population growth within the City or County; however, such impacts are discussed more fully in Section 6.0, *Other CEQA Considerations.* Further, the Project site is currently undeveloped and construction of the fire station at this location would not result in the loss of any existing housing or displacement of current City residents. Therefore, implementation of the proposed Project would not significantly adversely affect population or housing within the City. As no Project specific potentially significant population impacts would occur as a result of Project implementation, Project contributions to cumulative population and housing impacts would not be considered significantly adverse.

4.10.1.4 Recreation

The Final Mitigated Negative Declaration did not identify any significant impacts to recreation and none are anticipated. No established recreational uses are located on the proposed Project site. The Project site is located adjacent to the Sandpiper Golf Club, but construction of a new fire station would not directly or indirectly affect the quality or quantity of existing recreational opportunities of the golf course, or other recreational opportunities in the Project vicinity or Citywide, including coastal access. Therefore, implementation of the proposed Project would not adversely affect recreational resources in the Project vicinity or citywide.

4.10.2 Resources with Potentially Less Than Significant Impacts

4.10.2.1 Air Quality

Existing Setting

This section discusses the existing air quality conditions related to the Project area, which consists of the western Goleta area, including criteria pollutant levels and emissions. The California Air Resources Board (CARB) has divided California into 15 regional air basins according to topographic drainage features. Each basin is further divided into air pollution control districts (APCDs), which are responsible for managing and enforcing air quality regulations within their districts.

The City and proposed Project are located in the South-Central Coast Air Basin (SCCAB), which is comprised of the three counties of San Luis Obispo, Santa Barbara, and Ventura. The SCCAB is separated into three districts, each comprising the area of the respective county: San Luis Obispo County APCD, Santa Barbara County APCD (SBCAPCD), and Ventura County APCD. Being within the City of Goleta and County of Santa Barbara, the proposed Project is within the jurisdiction of SBCAPCD.

Topography and Meteorology

Meteorological and topographical influences that may affect air quality in the Project area include the semi-permanent high pressure cell that lies off the Pacific Coast, which leads to limited rainfall (approximately 16 inches per year), warm dry summers, and relatively cold dry winters. Maximum summer temperatures average approximately 76 degrees Fahrenheit (°F). During winter, average minimum temperatures are approximately 44°F.

Temperature inversions result when cool, stable air lies below warmer air aloft. Inversions also tend to confine horizontal flow through passes and valleys that are below the inversion height. Surface temperature inversions (0 to 500 feet) are most frequent during the winter, and subsidence inversions (1,000 to 2,000 feet) are most frequent during the summer. Inversions are an increase in temperature with height and are directly related to the stability of the atmosphere. Inversions act as a cap to the pollutants that are emitted below or within them, and ozone concentrations are often higher directly below the base of elevated inversions than they are at the earth's surface. For this reason, elevated monitoring sites will occasionally record higher ozone concentrations than sites at lower elevations. Generally, the lower the inversion base height and the greater the rate of temperature increase from the base to the top, the more pronounced effect the inversion will have on inhibiting vertical dispersion.

Santa Ana winds are northeasterly winds that occur primarily during fall and winter, but occasionally in spring. These are warm, dry winds blown from the high inland desert that descend the slopes of a mountain range. Wind speeds associated with the Santa Ana winds are generally 15 to 20 miles per hour, though wind speeds can sometimes exceed 60 miles per hour. During Santa Ana conditions, pollutants emitted in the County are moved out to sea. These pollutants can then be moved back onshore into the County in what is called a "post-Santa Ana condition."

Poor air quality is usually associated with air stagnation (high stability and restricted air movement). Therefore, it is reasonable to expect a higher frequency of pollution events in the southern portion of the County where light winds are frequently observed, as opposed to the northern part where the prevailing winds are usually strong and persistent.

Sensitive Receptors

Individuals with pre-existing health problems, those who are close to the emissions source, or those who are exposed to air pollutants for long periods of time are considered more sensitive to air pollutants than others. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because the very young (children under the age of 14), the elderly (over the age of 65), and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential land uses are considered sensitive to poor air quality because people in residential areas are often at home for extended periods and are therefore subject to extended exposure to the type of air quality present at the residence. Recreational land uses offer individuals a location to exercise and are therefore considered moderately sensitive to air pollution. Vigorous exercise places a high demand on the human respiratory function and poor air quality could add potentially detrimental stresses to the respiratory function.

Within the Project area, sensitive receptors potentially affected by the Project would include the multi-family Hideaway residential development located directly adjacent to and east of the Project site. The Sandpiper Golf Course is also located south of the Project site, directly across Hollister Avenue. However, the Sandpiper Golf Course is not considered a sensitive receptor.

Ambient Air Monitoring

The SBCAPCD is responsible for monitoring air quality in the County portion of the SCCAB to determine whether pollutant concentrations meet state and national air quality standards. The SBCAPCD has 18 air monitoring stations in the County. Monitoring stations measure a number of different variables including wind direction, wind speed, outdoor temperature, relative humidity, barometric pressure, solar radiation total hydrocarbons, ozone (O_3), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO_2), hydrogen sulfide (H_2S), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and particulate matter less than 10 microns in diameter (PM_{10}). The stations are categorized as Prevention of Significant Deterioration (PSD) stations or State and Local Air Monitoring Stations (SLAMS). PSD stations are used to determine baseline air quality and the impacts of specific operations. SLAMS measure urban and regional air quality.

Santa Barbara Air Quality Attainment

Depending on whether or not ambient air quality standards (AAQS) are met or exceed, Santa Barbara County is classified as being in “attainment,” in which ambient air quality does not exceed the adopted numerical air quality standard, or “non-attainment,” in which ambient air quality exceeds the adopted numerical air quality standard. In April 2016, the County was designated unclassifiable/attainment for the 2008 federal 8-hour ozone standard. In 2006, the State of California implemented a statewide 8-hour ozone standard of which the

County is currently in violation. The County is also in violation of the state standard for PM10, and designated as unclassifiable/attainment for the federal PM2.5 standard and unclassified for the state PM2.5 standard based on 2015 monitoring data (SBCAPCD 2017).

Common Air Pollutants

The following is a general description of the physical and health effects from the governmentally regulated air pollutants.

Ozone (O_3). O_3 occurs in two layers of the atmosphere. The layer surrounding the Earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone) layer extends upward from about 10 to 30 miles and protects life on Earth from the sun's harmful ultraviolet rays (UV-B). "Bad" ozone is a photochemical pollutant, and is formed from complex chemical reactions involving volatile organic compounds (VOCs), nitrogen oxides (NO_x), and sunlight; therefore, VOCs and NO_x are ozone precursors. VOCs and NO_x are emitted from various sources throughout the County. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. Ozone also damages natural ecosystems (e.g., forests and foothill plant communities) and damages agricultural crops and some human-made materials (e.g., rubber, paint, and plastics). Societal costs from ozone damage include increased healthcare costs, the loss of human and animal life, accelerated replacement of industrial equipment, and reduced crop yields.

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. At high concentrations, CO can reduce the oxygen-carrying capacity of the blood and cause headaches, dizziness, and unconsciousness.

Nitrogen Dioxide (NO_2). Nitrogen oxides are a family of highly reactive gases that are a primary precursor to the formation of ground-level O_3, and react in the atmosphere to form acid rain. NO_2 (often reported as total nitrogen oxides, NO_x) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

NO_2 can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or 10 one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill [SB] 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both state and federal $PM_{2.5}$ standards have been created. Particulate matter primarily affects infants, children, the elderly, and those with pre-existing cardiopulmonary disease.

On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to CARB's increasing concerns that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current state standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Reactive Organic Gases (ROGs) *and Volatile Organic Compounds* (VOCs). Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Regulatory Setting

The following is a brief summary of the regulatory context under which air quality is managed at the federal, state, and local levels. Within the City, air quality issues are addressed through the efforts of federal, state, regional, and local government agencies. These agencies work together and individually to improve air quality through legislation, regulations, policy making, education, and numerous related program.

Both the state and the federal governments have established AAQS for several different pollutants, a summary of which is provided in Table 4.10-1. For some pollutants, separate standards have been set for different time periods. Most standards have been set to protect public health. However, for other pollutants, standards have been based on some other value (e.g., protection of crops, protection of materials, or avoidance of nuisance conditions).

Table 4.10-1. Current Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standard[1]	Federal Standards[2]
		Standard	Primary Standard
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	N/A
	8 Hours	0.070 ppm (137 µg/m^3)	0.070 ppm (147 µg/m^3)
Particulate Matter (PM_{10})	24 Hours	50 µg/m^3	150 µg/m^3
	Annual Arithmetic Mean	20 µg/m^3	N/A
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard	35 µg/m^3
	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
	8 Hours	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)
Lead (Pb)	30 days average	1.5 µg/m^3	N/A
	Calendar Quarter	N/A	1.5 µg/m^3
	Rolling 3-Month Average	N/A	0.15 µg/m^3
Sulfur Dioxide (SO_2)[8]	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)
	3 Hours	N/A	N/A
	24 Hours	0.04 ppm (105 µg/m^3)	N/A

ppm = parts per million
µg/m^3 = micrograms per cubic meter
Source: California Air Resources Board 2016.

Federal

Federal Clean Air Act. The federal Clean Air Act (CAA) was passed in 1963 and amended in 1990, and was the first comprehensive federal law to regulate air emissions from stationary and mobile sources. Among other things, the law authorizes the USEPA to establish National AAQS (NAAQS), which help to ensure basic health and environmental protection from air pollution. The federal CAA also

gives the USEPA the authority to limit emissions of air pollutants coming from sources like chemical plants, utilities, and steel mills.

Federal Clean Air Act Amendments. In 1990, the U.S. Congress adopted the federal Clean Air Act Amendments (CAAA), which updated the nation's air pollution control program. The CAAA established a number of requirements, including new deadlines for achieving federal clean air standards. The USEPA is the federal agency charged with administering the CAAA and other air quality-related legislation. As a regulatory agency, USEPA's principal functions include setting NAAQS; establishing minimum national emission limits for major sources of pollution; and promulgating regulations. The CAAA require USEPA to approve state implementation plans (SIPs) to meet and/or maintain the NAAQS. California's SIP is comprised of plans developed at the regional or local level.

State

California Air Resources Board. The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets California ambient air quality standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. CARB is responsible for the control of vehicle emission sources, while the local air district is responsible for enforcing standards and regulating stationary sources.

California Clean Air Act. CARB ensures implementation of the California Clean Air Act (CCAA) and responds to the federal CAA. CARB is responsible for the control of vehicle emission sources, while the local air district is responsible for enforcing standards and regulating stationary sources.

Local

Santa Barbara County Air Pollution Control District. SBCAPCD monitors air quality and regulates stationary emission sources in the County. As a responsible agency under CEQA, SBCAPCD reviews and approves environmental documents prepared by other lead agencies or jurisdictions to reduce or avoid impacts on air quality and to ensure that the lead agency’s environmental document is adequate to fulfill CEQA requirements. As a concerned agency, the SBCAPCD comments on environmental documents and suggests mitigation measures to reduce air quality impacts.

County of Santa Barbara Clean Air Plan. The federal CAAA of 1990 and the CCAA of 1988 mandate the preparation of CAPs that provide an overview of air quality and sources of air pollution, and identify pollution-control measures needed to meet federal and state air quality standards. The SBCAPCD and the Santa Barbara County Association of Governments (SBCAG) are responsible for

formulating and implementing the CAP for the County. The CAP provides an overview of the regional air quality and sources of air pollution, and identifies the pollution-control measures needed to meet clean-air standards. The schedule for plan development is outlined by state and federal requirements, and is influenced by regional air quality. CAPs affect the development of SBCAPCD rules and regulations and other programs. They also influence a range of activities outside the district including transportation planning, allocation of monies designated for air-quality projects, and more.

The SBCAPCD 2016 Ozone Plan is the 3-year update to the County AQAP required by the state to show how SBCAPCD plans to meet the state 8-hour O3 standard. The 2016 Ozone Plan builds upon and updates the 2013 CAP and includes an inventory of O3 precursory emissions in the County, the most prevalent of which in the County are reactive organic compounds (ROCs) and NOx. The 2016 Ozone Plan focuses on reducing ozone precursor emissions through predicting vehicle activity trends and implementation transportation control measures which would serve to reduce mobile-source emissions, the primary source of ROC and NOx emissions in the County. The 2016 Ozone Plan satisfies both state and federal planning requirements and was adopted by the SBCAPCD Board in October 2016.

Impact Analysis

Methodology and Significance Thresholds

CEQA Guidelines Appendix G. In accordance with Appendix G of the 2017 CEQA Guidelines, impacts would be potentially significant if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for O_3 precursors);
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Create objectionable odors affecting a substantial number of people.

City of Goleta Environmental Thresholds and Guidelines Manual. Pursuant to the City's *Environmental Thresholds and Guidelines Manual*, a significant adverse impact may occur when a project, individually or cumulatively, triggers either one of the following:

- Interferes with progress towards the attainment of the ozone standard by releasing emissions which equal or exceed the established long-term quantitative threshold for NO_x and ROC; and/or

- Equals or exceeds the state or federal ambient air quality standard for any criteria pollutant (as determined by modeling).

SBCAPCD Scope and Content of Air Quality Sections in Environmental Documents. In addition to CEQA and City of Goleta thresholds of significance for impacts to air quality, SBCAPCD has prepared a *Scope and Content of Air Quality Sections in Environmental Documents* (2011) with separate adopted thresholds of significance. Under these thresholds, a project will not have a significant impact on air quality, either individually or cumulatively, if operation of the project will:

- Emit (from all project sources, both stationary and mobile) less than the daily trigger for offsets or Air Quality Impact Analysis set in the APCD New Source Review Rule, for any pollutant (i.e., 240 lbs/day for ROC or NO_x; and 80 lbs/day for PM_{10}); and
- Emit less than 25 lbs/day of NO_x and ROC from motor vehicle trips only; and
- Not cause or contribute to a violation of any California or National AAQS (except ozone); and
- Not exceed the APCD health risk public notification threshold adopted by the Board (10 excess cancer cases in a million for cancer risk and a Hazard Index of more than one (1.0) for non-cancer risk); and
- Be consistent with the latest federal and state air quality plans for Santa Barbara County.

The SBCAPCD does not have adopted operational thresholds for CO emissions as it is an attainment pollutant. Further, the SBCAPCD has not adopted quantified thresholds of significance for temporary (e.g., construction-related) emissions. However, as provided in SBCAPCD's Scope and Content of Air Quality Sections in Environmental Documents, CEQA requires that short-term impacts, such as exhaust emissions from construction equipment and fugitive dust generated during grading, be discussed and quantified in the environmental document. For the purpose of quantifying and discussing short-term construction related emissions, SBCAPCD uses 25 tons/year for ROC or NO_x as a guideline for determining significance of construction impacts.

The analysis of air quality impacts follows the guidance provided in the SBCAPCD *Scope and Content of Air Quality Sections in Environmental Documents* (2011). The EIR utilizes SBCAPCD thresholds of significance because they are more current than City thresholds, having most recently been adopted as part of the update of the APCD's *Scope and Content of Air Quality Sections in Environmental Documents* in 2014 whereas the City thresholds (which are based on the former County thresholds) are dated 2002.

Project Air Pollutant Emissions

For the purpose of estimating short-term and long-term Project emissions, the California Emissions Estimator Model (CalEEMod) v. 2016.3.2, a statewide land use emissions computer model designed to quantify criteria pollutant and GHG emissions recommended for use by SBCAPCD was used. Project details from Section 2, *Project Description,* were used to inform the assumptions provided in the CalEEMod program. The inputs and results of the program model runs for the Project are provided in Appendix H. Model results were then compared against SBCAPCD's numerical thresholds for criteria pollutants.

Construction Emissions. Construction emissions are estimated using CalEEMod which estimates emissions from each phase of construction, including demolition, excavation and site preparation, building construction, and architectural coating. Emission estimates are based on the types and amount of equipment that would be used in Project construction, the level of excavation required, the square footage of demolished buildings, the removal of demolition debris and soil, the size and type of new construction, construction schedule, and the vehicle trips generated.

Project construction would temporarily increase diesel emissions and would generate particulate matter (dust). Construction equipment within the Project area that would generate VOCs and NOx emissions could include graders, excavators, dump trucks, cranes, and bulldozers. It is assumed that all construction equipment used would be diesel powered and meet a minimum Tier 2 emission standard, providing a conservative estimate of construction vehicle emissions. Construction activity for the Project would be conducted 5 days a week beginning in June 2019 and ending in September 2020 as follows:

- Site Preparation – 43 days
- Grading – 43 days
- Building Construction – 219 days
- Paving – 21 days
- Architectural Coating – 22 days

Operational Emissions. Operational emissions associated with the Project are estimated using CalEEMod for mobile source, area, and energy emissions. Mobile emissions would be generated by the motor vehicle trips to and from the Project area. Area source emissions would be generated by consumer products, architectural coating, and landscape maintenance equipment. Energy source emissions would result from electricity and natural gas consumption for space and water heating. To determine if an air quality impact would occur, the increase in emissions over existing site emissions from the Project itself are compared with the SBAPCD regional thresholds.

Project Impacts and Mitigation Measures

AQ-1: ***Short-term Construction Emissions. Construction of the Project would result in the generation of short-term air pollutant emissions that would be below the Santa Barbara County Air Pollution Control District (SBCAPCD) guideline threshold of 25 tons/year for ROC or NO_x construction-related emissions***.

Construction activities for the Project would include site preparation, grading, building construction, paving, and architectural coating. Temporary construction air pollutant emissions would be generated through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project site. In addition, fugitive dust emissions would result from earthwork and construction activities. The site paving and finishing phase involving the application of architectural coatings (i.e., paints) and other building materials would release VOCs. A summary of the estimated construction emissions modeled for the Project are presented in Table 4.10-2. Construction emissions generated by the Project would not exceed adopted SBCAPCD criteria pollutant thresholds. This would result in a *temporarily adverse, but less than significant* (Class III) impact to regional air quality.

Table 4.10-2. Total Estimated Daily Construction Emissions

Air Pollutant	SBCAPCD Threshold	Maximum Estimated Construction Emissions (lbs/day) (S/W)	Exceeds Threshold?
NO_x	25	19.51 (S)	No
ROG	25	13.51 (S)	No
CO	-	14.28 (S)	NA
SO_x	-	0.02 (S/W)	NA
PM_{10}	-	8.44 (S/W)	NA
$PM_{2.5}$	-	4.94 (S/W)	NA

S = Summer; W = Winter
Refer to Appendix H for CalEEMod output sheets; overall emissions based on rounded totals.

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on air quality would be *adverse, but less than significant* (Class III).

Impact AQ-2: ***Long-term Operational Emissions. Operation of the Project would result in the generation of long-term air pollutant emissions from area sources, energy use, and vehicular trips to and from the site.that would be below the threshold of significance for ROC, NO_x, and PM_{10} adopted by SBCAPCD for both stationary and mobile source emissions.***

Long-term operation of the Project would generate air pollutant emissions. Operational emissions from the Project include those generated by vehicle trips (mobile emissions), the operation of equipment (energy emissions), use of consumer products and appliances, and the use of landscaping maintenance equipment (area source emissions). A summary of the estimated operational emissions modeled for the Project are presented in Table 4.10-3. Operational emissions generated by the Project would not exceed adopted SBCAPCD criteria pollutant thresholds. Further, operation of the Project would not emit more than 25 pounds per day of an ozone precursor, nor contribute enough peak hour trips to create a CO "hotspot", as the Project would only result in an increase of an estimated 29 average daily trips (ADT) (ATE 2017; Appendix G). Given these low levels of emissions, operation of the Project would not cause or contribute to a violation of any adopted AAQS. Therefore, long-term operational emissions of the Project are *adverse, but less than significant* (Class III). Detailed emissions calculations for the Project are included in Appendix H.

Table 4.10-3. Total Estimated Daily Operation Emissions

Air Pollutant	SBCAPCD Threshold	Maximum Estimated Construction Emissions (lbs/day)	Exceeds Threshold?
NO_x	25	7.37	No
ROG	25	2.97	No
CO	-	6.73	NA
SO_x	-	0.01	NA
PM_{10}	80	0.39	No
$PM_{2.5}$	-	0.39	NA

Refer to Appendix H for CalEEMod output sheets; overall emissions based on rounded totals.

In addition, as part of the Project, the Santa Barbara County Fire Department intends to utilize a generator during emergency situations such as earthquakes or wildfires when power supplies to proposed Station 10 are interrupted. The estimated 150-kilowatt (kW) emergency generator would be run on diesel fuel. It is assumed that staff would test this generator for periods of 30 minutes once a month and 2 hours once a year to ensure operational reliability during emergency events. The SBCAPCD Rule 802 New Source Review Best Available Control Technology (BACT) Thresholds (SBCAPCD 2016) were used to determine the significance of emissions associated with the emergency generator since it would be operating on a periodic, temporary basis during emergency situations. Emissions from the emergency generator were estimated using CalEEMod software and are determined to be below the thresholds, as summarized in Table 4.10-4.[1] Therefore, emissions are not expected to contribute to or cause an exceedance of adopted thresholds of significance or AAQS and would be considered *adverse, but less than significant* (Class III).

[1] Generator-specific emissions calculations can be located in Section 10.1 in Appendix H.

Table 4.10-4. Maximum daily Estimated Emissions for Emergency Generator

Duration	Source	Pollutant (lbs/day)			
		ROC, SO_x, and NO_x (sum)	CO	PM_{10}	$PM_{2.5}$
Temporary (emergency only)	Emergency Generator (Diesel)	10.0	6.70	0.39	0.39
SBCAPCD PST BACT Threshold		**120**	**500**	**80**	**55**
Significant?		**NO**	**NO**	**NO**	**NO**

The inhabited spaces of the fire station would be located approximately 120 feet from the emergency generator, while the nearest residences of the Hideaway residences would be located approximately 315 feet from the emergency generator. Based on utilization of CARB "Hot Spots" Stationary Diesel Engine Screening Risk Assessment, that distance from the generator would result in an estimated increased cancer risk of four in one million for fire station employees and two in one million for the nearest Hideaway residences sensitive receptors, below the CARB cancer risk threshold of significance of 10 in one million.[2] Because the primary source of concern for the Project is operation of the emergency diesel generator and the cancer effects from diesel PM generally drive the risk from diesel engines, chronic and acute non-cancer risks of the Project are not are expected to exceed SBCAPCD public health risk notification thresholds and are not considered in this analysis. This analysis assumes a non-emergency annual operation time of 10 hours, rather than planned operations of 30 minutes monthly (6 hours annually), and an additional 2-hour test every year for a total of 8 hours. Although this screening-level analysis identifies further health risk analysis would not be required and associated impacts are not considered to be significant, SBCAPCD may determine though its permit review process that additional screening health risk assessment will be required for the proposed Project.

In addition to potentially hazardous stationary source emissions, the Project has the potential to result in increased hazardous health risk from mobile source emissions. However, since traffic counts in this area (6,200 ADT) are well below CARB's definitions of high-traffic urban roads (100,000 ADT) and rural roads (50,000 ADT) (ATE 2017; CARB 2005), the overall impacts to the fire station from

[2] The cancer risk was determined from the CARB "Hot Spots" stationary diesel engine screening risk assessment tables for a 175 horsepower generator with an emission factor of 1.0 gallons/grams per break horsepower-hour at 50% load and an urban (worst case) setting (CARB 2010).

emissions associated with high traffic roadways would be *adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on air quality would be *adverse, but less than significant* (Class III).

Impact AQ-3: *Generation of Obnoxious or Objectionable Odors. Construction or operation of the Project would not result in generation of objectionable odors that would affect a substantial number of people.*

The proposed Project would involve the development of a new City fire station, a land use not typically associated with odor issues. Land uses that have the potential to generate considerable odors typically include, wastewater treatment plants, landfills, animal facilities, composting stations, and chemical plants. Further, operation of the site would not involve any activities that are considered to generate substantial objectionable odors. Construction of the site may, however, involve the installation of asphalt pavement which is known to generate odors which may be objectionable to some receptors. However, paving phases of construction would be temporary and localized to the site. Therefore, odor related impacts would be *temporarily adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on air quality would be *adverse, but less than significant* (Class III).

AQ-4: *Consistency with Applicable Air Quality Plans. Implementation of the proposed Project would not exceed Ozone Plan projections or result in inconsistency with applicable air quality plans or policies.*

Consistency with the applicable air quality plan, such as the County Ozone Plan or other regional air quality planning documents, is required under CEQA. In the County, consistency with the Ozone Plan means that stationary and vehicle emissions associated with the proposed Project are accounted for in the Ozone Plan's emissions growth assumptions. The Ozone Plan generally relies on the land use and population projections provided in the latest SBCAG Regional Growth Forecast 2010-2040 (SBCAG 2012).

The proposed Project would involve the development of a City fire station with no associated residential development. The Project would not result in additional growth in regional population. The Project is consistent with growth projections and is therefore considered to be consistent with the 2016 Ozone Plan. Impacts are therefore considered *adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on air quality would be *adverse, but less than significant* (Class III).

Cumulative Impacts

The Region of Influence for evaluating cumulative impacts on air quality includes the entire air basin and those proposed projects which would incrementally affect AAQS for particulate matter and ozone within the SCCAB.

Development projects would be subject to air quality standards and rules contained in the SBCAPCD and policies within the City's GP/CLUP, Goleta Municipal Code (GMC), and Ordinances. This would ensure adverse, but less than significant cumulative impacts related to air quality.

4.10.2.2 Energy Conservation

Existing Setting

Due to the larger geographic and regional context of energy services and supplies, information is not readily available for City-specific energy demand. Therefore, the discussion of existing conditions below provides a general overview of the larger regional (County and/or state) area energy supplies, demands, and services. Within the City, energy supplies include electricity, natural gas, petroleum and transportation fuel, and renewable resources (e.g., solar, wind, and other renewable sources of energy).

Electricity and Natural Gas

The City receives electricity services from Southern California Edison (SCE), and natural gas services from the Southern California Gas Company (SoCalGas). Within the SCE service territory, electrical power is generated by natural gas (26 percent) and renewable sources (25 percent), with the majority of its supply sources associated with non-traceable electrical transactions (41 percent) (California Energy Commission [CEC] 2016a).[3] Within the larger County, electricity and natural gas consumption in 2016 for non-residential uses was approximately 2,067 gigawatt hours (GWh) and 69.7 million therms, respectively (CEC 2018). In 2007, operation of City-owned municipal facilities resulted in commitment of a total 3.0 GWh of electrical supplies (City of Goleta 2012). Facilities and infrastructure providing electrical and natural gas service include transmission, distribution, and communication lines that span all throughout the City and County.

[3] "Non-traceable electrical transactions" means electricity from transactions that are not traceable to a specific generation source.

Petroleum and Transportation Fuel

The California Department of Transportation (Caltrans) reported that approximately 24.4 million automobiles, 5.6 million trucks, and 880,588 motorcycles were registered in the state in 2016, resulting in a total estimated 334.7 billion vehicle miles traveled (VMT) (Caltrans 2016) and 15.3 billion gallons of gasoline consumed (CEC 2017). Within the County, an estimated 3.5 billion vehicle miles were traveled in 2015-2016, accounting for approximately 1.0 percent of the state's total VMT (Caltrans 2017).

Renewable Resources

The state strongly supports production and use of renewable energy sources, including solar photovoltaic (PV), wind, hydrologic, and biomass. For example, in-state operating capacity of renewable resources was 26,300 mega-watts (MW) as of October 31, 2016. This total includes a little more than 5,200 MW of self-generation capacity, almost 5,100 MW of which is self-generation solar PV. The state's renewable energy portfolio includes wind (6,000 MW), solar PV (13,000 MW), geothermal (2,700 MW), small hydrologic (1,800 MW), solar thermal (1,300 MW) and biomass (1,300 MW) (CEC 2016b).

Regulatory Setting

Federal

Energy Policy Act of 2005. The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the Act, consumers and businesses can obtain federal tax credits for purchasing fuel efficient appliances and products, including buying hybrid vehicles, building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

State

California Energy Commission. The California Energy Commission CEC was created in 1974 to serve as the state's primary energy policy and planning agency. The CEC is tasked with reducing energy costs and environmental impacts of energy use - such as greenhouse gas emissions - while ensuring a safe, resilient, and reliable supply of energy.

State of California Integrated Energy Policy (SB 1398). In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the

least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for Zero Emission Vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicles miles traveled and accommodate pedestrian and bicycle access.

California Global Warming Solutions Act of 2006 (AB 32). Assembly Bill 32 (Health and Safety Code Sections 38500–38599; AB 32), also known as the California Global Warming Solutions Act of 2006, commits the state to achieving year 2000 GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the California Public Utilities Commission and CEC with providing information, analysis, and recommendations to the California Air Resources Board regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.

California Code of Regulations (CCR) Title 24. Title 24 of the CCR is known as the California Building Standards Code. The 2016 California Building Standards Code went into effect January 1, 2017 and includes the following:

CCR Title 24, Part 6 comprises the California Energy Code, which was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to increase the baseline energy efficiency requirements. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

CCR Title 24, Part 11 comprises the California's Green Building Standards Code (CALGreen), which establishes mandatory green building code requirements as well as voluntary measures (Tier 1 and Tier 2) for new buildings in California. The mandatory provisions in CALGreen will reduce the use of VOC-emitting materials, strengthen water efficiency conservation, increase construction waste recycling, and increase energy efficiency. Tier 1 and Tier 2 are intended to further encourage building practices that minimize the building's impact on the environment and promote a more sustainable design.

Clean Energy and Pollution Reduction Act of 2015 (SB 350). The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.

Renewable Portfolio Standard (SB 1070 and SB 107). Established in 2002 under SB 1078, the state's Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year

2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopt the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board, under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

Local

City of Goleta General Plan/Coastal Land Use Plan Conservation Element (2006). The 2006 GP/CLUP Conservation Element has adopted policies related to energy conservation to preserve and protect the environment from new development within the City.

The following are City General Plan Conservation Element policies which would apply to the Project:

- Conservation Element Policy 13.3 encourages new development incorporate renewable energy sources and allows that special consideration be given to the incorporation of renewable energy sources that do not have adverse effects on the environment or adjacent residential uses.
- Conservation Element Policy 13.4 requires the City implement energy conservation measures for all new City-owned facilities or for existing City-owned facilities that the time of major improvement. Such measures include, but are not limited to, energy-efficient lighting, solar hot water systems, and landscaping with drought-tolerant species.

City of Goleta Municipal Code (GMC). Title 15 of the GMC establishes regulations for the construction of new buildings. Included in Title 15 are several chapters governing energy and energy conservation regulations within the City. These include: Chapter 15.12, *Green Building Code,* which adopts the 2016 California Green Building Code and all applicable regulations; Chapter 15.13, *Energy Efficiency Standards,* which establishes mandatory energy efficiency requirements in exceedance of the 2008 Building Energy Efficiency Standards; and, Chapter 15.15, *Energy Code,* which adopts in its entirety the 2016 California Energy Code.

Energy Efficiency Action Plan (EEAP). A component of the City's CAP, the EEAP was adopted by the City in September 2012 and serves to provide a comprehensive guiding policy document for all City-related operations as they relate to energy efficiency and serves the assist the State of California in meetings

its GHG and energy efficiency goals as provided in AB 32. The EEAP identifies energy demands associated with operation of City municipal facilities and policies for increasing energy efficiency and conservation of the City's municipal buildings. The EEAP identified construction of a new 9,000 sf LEED Silver certified fire station building as an unfunded future City action.

Impact Analysis

Methodology and Significance Thresholds

CEQA Guidelines Appendix F. In accordance with Appendix F of the 2017 CEQA Guidelines, implementation of the proposed project may have a significant adverse impact on energy supplies if it would:

- Use large amounts of fuel or energy in an unnecessary, wasteful, or inefficient manner.

- Constrain local or regional energy supplies, affect peak and base periods of electrical or natural gas demand, require or result in the construction of new electrical generation and/or transmission facilities, or necessitate the expansion of existing facilities, the construction of which would cause significant environmental effects.

- Conflict with existing energy standards, including standards for energy conservation.

City of Goleta Environmental Thresholds and Guidelines Manual. The City of Goleta *Environmental Thresholds and Guidelines Manual* does not have thresholds of significant relating to energy supplies or energy conservation.

Project Impacts and Mitigation Measures

Impact EC-1: ***Increased Demand for Energy Resources. Construction and operation of the Project would result in a net increase in regional energy demand. However, the Project includes several energy conserving design features and net increases in demand would not constitute wasteful or inefficient use of supplies, nor would increases in demand from the Project constrain existing supplies or services.***

Electricity and Natural Gas. Construction of the Project would require commitment of electrical supplies for the operation of construction equipment; however, associated demands would be temporary in nature and constitute a highly negligible increase in existing electricity supplies. Implementation of the proposed Project would result in the long-term commitment of additional energy resources, including consumption of electricity and natural gas through operation of the Project. As summarized in Table 4.10-5, operation of the Project is estimated to result in the demand for 164,524 kilo-watt hours per year (kWh/yr) of electricity,

and 106,024 therms per year (therms/yr) of natural gas based on CalEEMod modeling results (see Appendix H).

Table 4.10-5. Estimated Project Electricity and Natural Gas Demands

Proposed Land Use	Theoretical Conventional Energy Project[1]	
	Electricity Demand (kWh/yr)	Natural Gas Demand (therms/yr)
Fire Station[2]	162,284	106,024
Parking Lot	2,240	0
Total	**164,524**	**106,024**

[1] Theoretical Conventional Energy Project refers to 'unmitigated' demand for energy supplies excluding the Project's proposed energy conservation features.
[2] Modeled as 'Government (Civic Center)' in CalEEMod.
Source: See Appendix H, CalEEMod Worksheets, Section 5.0 Energy Details.

The Project's long-term commitment of electricity and natural gas supplies would represent a net increase in regional demands by less than 0.008 percent and 0.16 percent, respectively. Increases in regional electricity and natural gas supplies of this proportion would represent a highly incremental and negligible increase in demand which could readily be accommodated by existing regional supplies without having the effect of added stress or constrain upon these supplies. Further, as discussed in Section 2.6.9, Project Sustainable Design Features, the proposed Project would be designed to Leadership in Energy and Environmental Design (LEED) Silver standards that would incorporate various features to further reduce electrical energy consumption beyond those estimated in Table 4.10-5. Based on the Project's estimated energy demands compared to regional and statewide demand and service capacity, the Project is not anticipated to substantially adversely affect existing electricity and/or natural gas supplies necessitating the expansion of existing facilities. Nor would construction and operation of the Project result in the use irreversible commitment of a large amount of such supplies in an unnecessary, wasteful, or inefficient manner. Therefore, impacts to electricity and natural gas resources are considered *adverse, but less than significant* (Class III).

Petroleum and Transportation Fuel (Construction). The primary resource consumed during Project construction would include diesel fuel for the operation of diesel powered construction equipment. The total construction fuel consumption is calculated below as the sum of specific total fuel consumption calculated for each piece of equipment used in each phase of construction. To calculate total fuel consumption for specific equipment, Section 3.0, Construction Detail in the CalEEMod Worksheets located in Appendix H provides detailed construction phasing, construction equipment used in each phase, total number of days worked, equipment horsepower, equipment load factor, and equipment quantities. Total fuel consumption is then based on a fuel consumption factor of 0.05 gallons per horsepower per hour (gal/hp/hr) for diesel engines as derived from SCAQMD CEQA Handbook Table A9-3E. Calculation of fuel consumption involves the following steps:

Total Fuel Consumption = Fuel Consumption Rate x Duration

Where: Duration = Quantity of Equipment x Hours of Operation of Equipment each Day x Total Number of Days Worked

Where: Fuel Consumption Rate = Equipment Horse Power x Equipment Load Factor x Fuel Consumption Factor

Using detailed inputs of Project construction phasing and equipment details provided in Appendix H Section 3.0, Construction Details, the total fuel to be required during construction of the Project is conservatively estimated to be 26,587 gallons (Table 4.10-6). Refer to detailed calculations of Project Construction Fuel Consumption included as Attachment A in Appendix H. Based on statewide fuel demands, commitment of additional diesel fuel demands from construction of the Project would result in an increase in statewide fuel demand by less than 0.001 percent. Given Project construction would result in negligible increases in fuel demand over a short-term, impacts from increased fuel consumption from construction of the Project are considered *adverse, but less than significant* (Class III).

Table 4.10-6. Estimated Construction Fuel Demand

Construction Phase	Fuel Consumption (gallons of fuel)[1]
Site Preparation	3,423
Grading	2,804
Building Construction	18,814
Paving	1,300
Architectural Coating	247
Total	**26,587**

[1] Estimated fuel consumption conservatively assumes operation of equipment approximately 8 hours per day for the entire duration of the construction phase.
Source: Appendix H, Attachment A.

Petroleum and Transportation Fuel (Operation). Operation of the Project would result in the daily consumption of vehicle fuel as station employees and visitors of the station would travel to and from the Project site. In addition, vehicle fuel would be consumed during emergency response operations, and diesel fuel would be consumed for operation of the emergency generator. As provided in Table 4.10-7, operation of the Project is anticipated to result in the generation of an additional 54,896 annual VMT, or less than 0.002 percent of the County's annual VMT. Based on average fuel economy by mode of transportation, operation of the Project would result in a long-term annual fuel demand of 3,223 gallons of transportation fuel. In addition, utilizing calculations for estimated construction equipment fuel consumption from above, operation of the proposed emergency diesel generator would result in consumption of an additional estimated 788 gallons of diesel fuel per year, for a net total Project operational fuel demand of 4,011 gallons per year. Estimated Project operational fuel demands would represent a highly negligible

increase (>0.001 percent) in statewide fuel demands. Based on the Project's incremental increase in petroleum and transportation fuel demands compared to regional and statewide demands, the Project is not anticipated to substantially adversely affect existing fuel supplies necessitating the expansion of existing facilities, nor would construction and operation of the Project result in the use of a large amount of fuel in an unnecessary, wasteful, or inefficient manner. Therefore, impacts to petroleum and transportation fuel resources from operation of the Project are considered *adverse, but less than significant* (Class III).

Table 4.10-7. Estimated Operational Fuel Consumption

Trip Type	Estimated ADT[1]	Average Trip Length (miles)[2]	Annual VMT[3]	Average Fuel Economy (miles/gallon)[4]	Total Annual Fuel Consumption (gallons/year)
Staff Trips	6	6.6	14,454	23.2	623
Fire Engine Calls	10	2.5	9,125	7.3	1,250
Misc. Trips	6	6.6	14,454	23.2	623
Public Meeting Room	7	6.6	16,863	23.2	727
Total Vehicle Fuel Demand	*29*	--	*54,896*	--	*3,223*
Emergency Diesel Generator Operation					*788*
Total Operational Fuel Demand					**4,011**

[1] Estimated ADT as provided in Appendix G.
[2] Average Trip Length based on assumed average trip length for Commercial-Work trips from CalEEMod. Average trip length for the 'Fire Engine Calls' category based on average travel distance within the proposed Fire Station 10 5-minute response area.
[3] Annual VMT = Estimated ADT x Average Trip Length x 365 days/year.
[4] Average fuel economy based on average 2014 U.S. vehicle fuel efficiency (mpg) from Table 4-12: Average Light Duty Vehicle, Long Wheel Base Fuel Consumption and Travel, and Table 4-13: Single-Unit 2-Axle 6-Tire or More Truck Fuel Consumption and Travel of the National Transportation Statistics.
Source: Appendix H, Section 4.2, Trip Summary Information and Attachment A; Appendix G; Bureau of Transportation Statistics 2017.

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on air quality would adverse, but less than significant (Class III).

Impact EC-2: ***Consistency with Energy Conservation Policies. The Project would include several energy conservation design features which would meet or exceed applicable City-adopted energy conservation standards. The Project would not result in inconsistency with any City, State, or Federal standards or policies adopted for energy conservation.***

Consistency with existing energy standards, including policies and programs adopted by the City or under the EEAP, is required under Appendix F, Energy Conservation, of the CEQA Statutes and Guidelines. For projects within the City, compliance with the California Energy Code, Green Buildings Standards, and the City's Energy Efficiency Standards would result in consistency with existing energy standards.

As discussed under Impact EC-1 above, the Project would result in the irreversible long-term commitment of energy supplies during operation of the fire station, particularly electrical supplies. As discussed above and in Section 2.6.9, *Project Sustainable Design Features*, the proposed Project would be designed to LEED Silver standards that would incorporate various features to reduce the Project's potential to result in the wasteful or inefficient use of energy resources and promote the conservation of energy supplies, consistent with identification in the City's EEAP of construction of a future City-owned fire station developed to LEED Silver fire station certification. Given the Project consists of a new City-maintained municipal structure and would involve discretionary actions requiring agency review and approval, the Project be subject to compliance with all local, state, and federal policies designed to reduce wasteful energy consumption, and improve overall energy conservation and sustainability. Further, as analyzed under Impact GHG-2 in Section 4.10.2.3, *Greenhouse Gas Emissions*, the Project would be consistent with all applicable measures of the CAP, including adopted building energy efficiency standards. Therefore, implementation of the Project is considered to have *no impact* to the environment with regard to consistency with existing adopted energy conservation policies or program (Class IV).

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on air quality would adverse, but less than significant (Class III).

Cumulative Impacts

The Region of Influence for evaluating cumulative impacts on energy resources include the service are of associated private utility providers with past, present, and reasonably probable projects which would have the potential to contribute towards significant increases in regional energy demands or the wasteful, inefficient irreversible commitment of energy resources. Therefore, all related projects that would generate new demand for energy resources within the City and region would be within the Region of Influence.

The proposed Project would contribute incrementally to adverse effects on energy resource demand and conservation when considering the cumulative impact of concurrently planned development within the City. Like the Project, other cumulatively considered development identified in Table 3-1 of Section 3.0, *Related Projects*, consist of discretionary actions requiring agency approval and

are required to comply with local, regional, state, and federal policies relating to energy use and conservation. For instance, local projects involving the development of new buildings must be designed to CALGreen and the 2016 California Energy Code. Further, these projects are/would be operated and maintained by private utilities companies such as SCE and SoCal Gas, which plan for anticipated growth. Electric and natural gas services are provided upon demand from consumers and expanded as needed to meet demand, consistent with applicable local, state, and federal regulations. Therefore, it is not anticipated that the Project contribution to cumulative impacts generated by the projects identified in Table 3-1, along with other projects with the region or the service area of these utility providers, would result in a significantly considerable wasteful use of energy resources, such that the Project, and other cumulative projects, would have a cumulative effect on energy conservation.

4.10.2.3 Greenhouse Gas Emissions

Existing Setting

Climate Change and Greenhouse Gases

The natural process through which heat is retained in the troposphere is called the "greenhouse effect." The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave (thermal) radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and carbon dioxide (CO2). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential for each GHG based on its ability to absorb and re-radiate long wave radiation.

The following is a general description of some of the principle GHGs.

Water Vapor (H2O). Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively.

The primary human-related source of water vapor comes from fuel combustion in motor vehicles; however, this is not believed to contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC) has not determined a Global Warming Potential for water vapor.

Carbon Dioxide (CO2). CO2 is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of CO2 in the atmosphere has increased 36 percent. CO2 is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.

Methane (CH4). CH4 is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The U.S. Environmental Protection Agency (USEPA) adopted Global Warming Potential of methane is 21.

Nitrous Oxide (N2O). N2O is produced by both natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The USEPA adopted Global Warming Potential of N2O is 310.

Hydrofluorocarbons (HFCs). HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The USEPA adopted Global Warming Potentials of HFCs range from 140 for HFC-152a to 11,700 for HFC-23.

Perfluorocarbons (PFCs). PFCs are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semi-conductor manufacturing. PFCs are potent GHGs with a Global Warming Potential several thousand times that of CO2, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years). The USEPA adopted Global Warming Potentials of PFCs range from 6,500 to 9,200.

Sulfur hexafluoride (SF6). SF6 is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF6 is the most potent GHG that has been evaluated by the IPCC with a Global Warming Potential of 23,900. However, its global warming contribution is not as high as the Global Warming Potential would indicate due to its low mixing ratio compared to CO2 (4 parts per trillion [ppt] of SF6 versus 365 ppm of CO2).

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric O3 depletors;

therefore, their gradual phase out is currently in effect. The following is a listing of these compounds.

Hydrochlorofluorocarbons (HCFCs). HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The Global Warming Potentials of HCFCs range from 93 for HCFC-123 to 2,000 for HCFC-142b.

1,1,1 trichloroethane. 1,1,1 trichloroethane, or methyl chloroform, is a solvent and degreasing agent commonly used by manufacturers. The Global Warming Potential of methyl chloroform is 110 times that of CO2.

Chlorofluorocarbons (CFCs). CFCs are used as refrigerants, cleaning solvents, and aerosol spray propellants. CFCs were also part of the USEPA's Final Rule (Federal Register [FR], volume 57, page 3374) for the phase out of O3-depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere, contributing to the greenhouse effect. CFCs are potent GHGs with Global Warming Potentials ranging from 4,600 for CFC 11 to 14,000 for CFC 13.

Regulatory Setting

The following is a brief summary of those federal, state, and local regulations which address both climate change and GHG emissions.

Federal

U.S. Environmental Protection Agency (U.S. EPA). The U.S. EPA is responsible for implementing federal policy to address global climate change. The federal government administers a wide array of public-private partnerships to reduce U.S. GHG emissions. These programs focus on energy efficiency, renewable energy, methane and other non-CO2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions.

Massachusetts v. Environmental Protection Agency. In *Massachusetts v. Environmental Protection Agency et al. (2007) 549 U.S. 497*, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the U.S. EPA to decide whether the gases endangered public health or welfare. On December 7, 2009, the U.S. EPA issued an Endangerment Finding under Section 202(a) of the CAA, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA.

On May 13, 2010, the U.S. EPA issued a Final Rule that took effect on January 2, 2011, setting a threshold of 75,000 MT CO_2e per year for GHG emissions from major industrial facilities. The U.S. EPA has not yet adopted thresholds for other GHG sources, although carbon pollution standards have been proposed to cut carbon pollution from existing and new power plants, the largest source of GHG emissions in the U.S.

To date, Congress has not enacted any legislation requiring economy-wide mandatory reductions in GHG emissions. Several different "cap-and-trade" proposals, which would require such reductions, have been introduced in Congress, but none of them have been passed by either branch of Congress, let alone become law. All such plans would place caps on the total amount of GHG which can be emitted during future years, and allow emitters to buy and sell emission credits. However, such plans vary widely on what caps they would place on emissions and how quickly such caps would come into effect, as well as how their specific mechanisms would work.

International Protocols. In 1988, the United Nations established the IPCC to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In June 1992, the U.S. joined other countries in the United Nations Framework Convention on Climate Change (UNFCCC) agreement with the goal of stabilizing GHG emissions. The treaty itself set no binding limits on GHG emissions for individual countries and contains no enforcement mechanisms. In that sense, the treaty is considered legally non-binding. Instead, the treaty provides a framework for negotiating specific international treaties (called "protocols") that may set binding limits on GHGs.

The Kyoto Protocol was the first treaty made under the UNFCCC on December 1, 1997 and was the first international agreement that commits signatories to reduce GHG emissions. The Protocol sets emissions targets for developed countries which are binding under international law. The Kyoto Protocol has had two commitment periods, the first of which lasted from 2005-2012, and the second 2012-2020. The U.S. has not ratified the Kyoto Protocol. It has been estimated that if the commitments outlined in the Kyoto Protocol were met, global GHG emissions could have been reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008–2012.

In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto, but no binding agreements were reached. Many of the industrialized countries that ratified the Kyoto Protocol have not and/or are not expected to meet their targets. However, countries did ratify the Copenhagen Accord, a nonbinding agreement. The Copenhagen Accord, a voluntary agreement between the U.S., China, India, and Brazil, recognizes the need to keep global temperature rise to below 2°C and obligates signatories to establish measures to reduce GHG emissions and to prepare to provide help to poorer countries in adapting to climate change.

Representatives from 194 U.N. member states, including business leaders and nongovernment organizations, met in Cancun, Mexico in December 2010 to participate in the United Nations Climate Change Conference (COP-16). In all, approximately 12,000 participants met to work out the language and reduction targets of a new agreement. The result was the Cancun Agreements, a voluntary agreement similar to the Copenhagen Accord, but with broader U.N. member nation support. Under the Cancun Agreements, countries agree to keep temperature rise below 2°C above pre-industrial levels and developed countries are urged to make more aggressive emission cut pledges.

The UNFCCC met again in December 2011 in Durban, South Africa to continue deliberating on a treaty to replace the Kyoto Protocol, which ended in 2012. The conference agreed to a legally binding agreement comprising all countries, which will take effect in 2020. There was also progress regarding the creation of a Green Climate Fund (GCF) for which a management framework was adopted.

The UNFCCC Paris Agreement brings nations into a common cause to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change (UNFCCC 2017). After joining the Paris Agreement in September 2016, the U.S. left the Paris Agreement in June 2017.

State

California Air Resources Board. The California ARB, a part of the California Environmental Protection Agency (Cal EPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, ARB conducts research, sets state AAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. ARB has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts. ARB has also recently adopted a statewide GHG emissions limit for 2020 (427 million metric tons of CO_2e), an emissions inventory, and requirements to measure, track, and report GHG emissions by major industries.

Executive Order S-30-15. California Governor Brown announced on April 29, 2015 through Executive Order B-30-15 a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. This order acts as an intermediate goal to achieving 80 percent reductions by 2050 as outlined in Executive Order S-3-05 below.

Executive Order S-3-05. California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels.
- By 2020, California shall reduce GHG emissions to 1990 levels.
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

Based on recent case law, the GHG reduction targets of Executive Order S-30-15 are not required to be utilized as thresholds of significance for determining environmental impacts from a Project's GHG emissions (*Cleveland National Forest Foundation v. San Diego Association of Governments, July 13, 2017*).

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. The California Global Warming Solutions Act of 2006 (AB 32) recognizes that California is a major contributor to U.S. GHG emissions. AB 32 acknowledges that such emissions cause significant adverse impacts to human health and the environment, and therefore must be identified and mitigated where appropriate. AB 32 also establishes a state goal of reducing GHG emissions to 1990 levels by 2020 – a reduction of approximately 30 percent from projected state emission levels and 15 percent from current state levels, with even more substantial reductions required in the future.

California ARB has adopted the Climate Change Scoping Plan, which outlines the state's strategy to achieve the 2020 GHG limit set by AB 32. This Scoping Plan proposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health.

Senate Bill (SB) 375. The passage of SB 375 (Steinberg, Chapter 728, Statutes of 2008) on September 30, 2008 created a process whereby local governments and other stakeholders must work together within their region to achieve the GHG reductions specified in AB 32 through integrated development patterns, improved transportation planning, and other transportation measures and policies. Under SB 375, the California ARB is required to set regional vehicular GHG reduction targets for 2020 and 2035. On September 23, 2010, the California ARB adopted the vehicular GHG emissions reduction targets that require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 relative to emissions in 2005 for each metropolitan planning organization (MPO). Additionally, SB 375 required that those targets be incorporated within a Sustainable Communities Strategy (SCS), a newly required element within the MPO's Regional Transportation Plan (RTP).

Santa Barbara California Association of Governments (SBCAG) is the MPO for the County of Santa Barbara, which includes the City of Goleta. The GHG reduction

targets for the County and consistency with AB 32 is addressed in the County's Energy and Climate Action Plan (ECAP).

Senate Bill (SB) 97. SB 97, passed in 2007, amends CEQA to establish that GHG emissions and their effects are appropriate subjects for CEQA analysis, and directs the OPR to develop draft CEQA Guidelines for evaluating and mitigating GHG emissions and global climate change effects. In March 2010, the California Office of Administrative Law codified into law CEQA amendments that provide regulatory guidance with respect to the analysis and mitigation of the potential effects of GHG emissions, as found in CEQA Guidelines Section 15183.5. The California Natural Resources Agency adopted the Guidelines in January 2009.

However, neither a threshold of significance nor any specific mitigation measures are included or provided in these CEQA Guidelines Amendments. The Guidelines require a lead agency to make a good-faith effort based on the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The Guidelines give discretion to the lead agency whether to: 1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; and/or 2) rely on a quantitative analysis or performance-based standards. Further, the Guidelines identify three factors that should be considered in the evaluation of the significance of GHG emissions:

1. The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Executive Order S-13-08. Executive Order S-13-08, the Climate Adaptation and Sea Level Rise Planning Directive, provides clear direction for how the state should plan for future climate impacts. The first result is the 2009 California Adaptation Strategy (CAS) report which summarizes the best known science on climate change impacts in the state to assess vulnerability and outlines possible solutions that can be implemented within and across state agencies to promote resiliency.

California Code of Regulations (CCR) Title 24. Title 24 of the CCR is known as the California Building Standards Code. The 2016 California Building Standards Code went into effect January 1, 2017 and includes the following:

CCR Title 24, Part 6 comprises the California Energy Code, which was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to increase the baseline energy efficiency requirements. Although it was not originally intended to

reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

CCR Title 24, Part 11 comprises CALGreen, which establishes mandatory green building code requirements as well as voluntary measures (Tier 1 and Tier 2) for new buildings in California. The mandatory provisions in CALGreen will reduce the use of VOC-emitting materials, strengthen water efficiency conservation, increase construction waste recycling, and increase energy efficiency. Tier 1 and Tier 2 are intended to further encourage building practices that minimize the building's impact on the environment and promote a more sustainable design.

Senate Bill (SB) 32 and Assembly Bill (AB) 197. SB 32 and AB 197 were both approved by Governor Jerry Brown on September 8, 2016 and became effective on January 1, 2017. SB 32 establishes a new target for GHG emissions reductions at 40 percent of 1990 levels by 2030. AB 197 is paired with SB 32, and is a measure that increases legislative oversight over the California ARB, in order to ensure strategies to lower emissions favor those most impacted by climate change.

Local

Santa Barbara County Air Pollution Control District. SBCAPCD monitors air quality and regulates stationary emission sources in the County. As a responsible agency under CEQA, SBCAPCD reviews and approves environmental documents prepared by other lead agencies or jurisdictions to reduce or avoid impacts on air quality and to ensure that the lead agency's environmental document is adequate to fulfill CEQA requirements. As a concerned agency, the SBCAPCD comments on environmental documents and suggests mitigation measures to reduce air quality and GHG impacts.

City of Goleta Climate Action Plan (CAP). The federal CAAA of 1990 and the CCAA of 1988 mandate the preparation of CAPs that provide an overview of air quality and sources of air pollution, and identify pollution-control measures needed to meet federal and state air quality standards. The CAP, adopted by the City in July 2014, provides an overview of the regional GHG emissions and outlines a framework of quantified and non-quantified measures to reduce community GHG emissions by 2020 and 2030 and serves as a Qualified GHG Reduction Strategy consistent with State CEQA Guidelines. The measures identified in this plan are intended to achieve targeted GHG emissions reductions through increasing energy and water efficiency for buildings and expanding alternative transportation choices. Consistent with state objectives outlined in AB 32, the City added Conservation Element Implementation Action 5 (CE-IA-5) to its 2006 GP/CLUP in 2009 to develop a Greenhouse Gas Reduction Plan supporting state implementation of AB 32. While CE-IA-5 does not specify a reduction target, the City has decided to use a target of 11 percent below 2007 emissions for 2020 emissions targets, and 26 percent below 2020 levels for 2030. The CAP is

intended to address City activities, as well as activities and projects subject to ministerial and/or discretionary approval by the City.

Impact Analysis

Methodology and Significance Thresholds

CEQA Guidelines Appendix G. In accordance with Appendix G of the 2017 CEQA Guidelines, implementation of the proposed project may have a significant adverse impact on GHGs 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.

City of Goleta Environmental Thresholds and Guidelines Manual. The City of Goleta *Environmental Thresholds and Guidelines Manual* does not have thresholds of significant relating to "Greenhouse Gas Emissions" or climate change.

Santa Barbara County Air Pollution Control District CEQA Guidelines. At this time, the SBCAPCD does not have thresholds of significance for GHG emissions that would apply to the proposed Project. SBCAPCD amended its Environmental Review Guidelines (2015) to include GHG thresholds for stationary source land uses including "equipment, processes and operations that require an SBCAPCD permit to operate," of which the proposed Project does not apply.

The significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional GHG reduction plan (such as a CAP). Given neither the City nor the SBCAPCD have adopted quantitative GHG emissions thresholds for area sources, the Project is analyzed for consistency with the CAP. In addition, in order to provide a quantitative evaluation of the significance from anticipated GHG emissions associated with the Project, the anticipated GHG emissions from the project are also compared to the San Luis Obispo County Air Pollution Control District (SLOAPCD) Greenhouse Gas Thresholds, as adopted in 2012. The SLOAPCD GHG thresholds are the most recently adopted quantitative thresholds for area sources in the SCCAB, and as such, are an appropriate comparison for the Project.

Based on the adopted SLOAPCD methodology, three thresholds can be used to evaluate the level of significance of GHG emissions impacts for residential and commercial projects. The three thresholds are summarized in Table 4.10-8 below.

Table 4.10-8. SLOAPCD GHG Significance Determination Criteria

GHG Emissions Source Category	Operational Emissions
For Land Use Development Projects including: Residential, Commercial, and Public Land Use and Facilities	Compliance with Qualified GHG Reduction Strategy OR Bright-Line Threshold of 1,150 MT of CO_2e/year OR Efficiency Threshold of 4.9 MT of CO_2e/SP[1]/year

SP = Service Population (residents + employees)
Source: SLOAPCD 2012.

The Project is an approximate 11,600 square feet, two-story fire station. Given the proposed Project is not directly service oriented in terms of the SLOAPCD GHG efficiency threshold, the bright-line threshold is considered most applicable to the Project. Therefore, the Project would have a potentially significant contribution to GHG emissions if it would result in greater than 1,150 MT of CO_2e/year.

Project Greenhouse Gas Emissions

For the purpose of estimating Project GHG emissions, the CalEEMod v. 2016.3.2, a statewide land use emissions computer model designed to quantify criteria pollutant and GHG emission recommended for use by SBCAPCD was used. Project details from Section 2, *Project Description,* were used to inform the assumptions provided in the CalEEMod program. The inputs and results of the program model runs for the Project are provided in Appendix H. Model results were then compared against SLOAPCD's numerical bright-line thresholds for GHG emissions from public land use development projects. The Project's consistency with the GHG reduction targets and strategies of the CAP are also identified.

Construction Emissions. Construction equipment typically uses fossil fuels, which generates GHGs such as carbon dioxide, methane, and nitrous oxide. Methane may also be emitted during the fueling of heavy equipment. The raw materials used to construct new buildings can sequester carbon; however, demolition of structures can result in the gradual release of the carbon stored in waste building materials as those materials decompose in landfills. Since the exact nature of the origin or make-up of the construction materials is unknown, only operation of construction vehicles and equipment is considered in the analysis of construction GHG emissions.

Based on current SLOAPCD methodology for determining project GHG emissions, GHGs emitted during construction are amortized over an estimated 25-year project lifetime.

Operational Emissions. Operational GHG emissions associated with the Project are estimated using CalEEMod for mobile source, area, and energy emissions.

Mobile GHG emissions would be generated by the motor vehicle trips to and from the Project area. Area source emissions would be generated by consumer products, architectural coating, and landscape maintenance equipment. Energy source emissions would be generated by emissions resulting from electricity and natural gas consumption for space and water heating. To determine if an impact would occur from Project GHG emissions, the increase in emissions over existing site emissions from the Project itself are compared with the SLOPCD numerical thresholds and the Project is compared for consistency with the City CAP.

Although no significant impacts were identified, the Final Mitigated Negative Declaration provided two recommended mitigation measures for incorporation. These recommended measures included additional energy conservation measures to be incorporated into the design and operation of the fire station to improve energy conservation and recommendation for acquisition of LEED certification, both of which would ensure further reduction in Project operational GHG emissions. Since preparation of the Final Mitigated Negative Declaration in 2010, the proposed Project, as analyzed in this EIR, has undergone changes in the implementation and design of the fire station which has resulted in incorporation of many of these features proposed in these recommended mitigation measures. These changes have included incorporation of energy efficiency improvements and water conservation measures and revisions to the design of the Project consistent with LEED Silver standards. As such, revisions in the design of the Project since preparation of the Final Mitigated Negative Declaration has demonstrated incorporation of these recommended GHG measures, and incorporation of such mitigation is not required for the proposed Project.

Project Impacts

Impact GHG-1: ***Project GHG Emissions. The Project would generate temporary, as well as long-term operational GHG emissions, which would incrementally contribute to climate change, but would not exceed applicable quantified GHG emissions thresholds***.

Construction Emissions. Construction of the Project would result in the generation of GHG emissions as a result of operation of construction equipment. Construction activities would occur over an estimated 16-month period and would generate an estimated 174.89 MT CO_2e/year net new annual GHG emissions (Table 4.10-9), primarily from use of off-road construction equipment during building construction phases of the Project. Per SLOAPCD methodology, maximum annual construction emissions for the Project would be approximately 7.0 MT CO_2e/year when amortized for the life of the Project (25 years).

Table 4.10-9. Estimated Construction GHG Emissions

Construction Phase		GHG Emissions (MT CO_23/year)	Total Annual GHG Emissions (MT CO_2e/year)
Year 2019 Construction	Site Preparation	34.41	136.25
	Grading	32.79	
	Building Construction	69.05	
Year 2020 Construction	Building Construction	158.60	174.89
	Paving	13.14	
	Architectural Coating	3.15	
Maximum Annual GHG Emissions from Construction			*174.89*
Amortized over 25 Years			**7.0**

Refer to Appendix H for CalEEMod output sheets; overall emissions based on rounded totals.

Operational Emissions. Direct operational emissions of the Project would result from use of electricity and natural gas for utilities as a result of operational activities, operation of the emergency generator for regular tests and in the event of emergency situations, irrigation of landscaping, and consumption of vehicle fuel from increased vehicle trips. A summary of the annual GHG emissions from Project operation is provided in Table 4.10-10. As shown, operation of the Project would generate a total of 103.09 MT CO_2e/year.

Table 4.10-10. Estimated Operational GHG Emissions

Source Category	GHG Emissions (MT CO_2e/year)
Area	0.00
Energy	58.30
Mobile	0.20
Waste	8.25
Water	30.75
Total	**103.09**

Refer to Appendix H for CalEEMod output sheets; overall emissions based on rounded totals.

Total Project GHG Emissions. The total annual GHG emissions generated by the Project, as determined per SLOAPCD methodology, is summarized in Table 4.10-11. As shown, maximum annual amortized construction emissions plus total operational emissions would equate to an estimated 110.09 MT CO_2e/year, which is well below SLOAPCD's bright-line threshold adopted for determining cumulative significance of land use development projects on global climate change. Therefore, the Project's quantifiable impact from GHG emissions on global climate change would be *adverse, but less than significant* (Class III).

Table 4.10-11. Total Project GHG Emissions

Category	Project Annual GHG Emissions (MT CO_2e/year)
Maximum Annual Construction (Amortized)	7.0
Total Operational	103.09
Total	**110.09**
Above Bright-Line Threshold?	***No***

Refer to Appendix H for CalEEMod output sheets; overall emissions based on rounded totals.

Mitigation Measures. No mitigation measures would be required.

Residual Impact. Impacts would be less than significant without mitigation.

Impact GHG-2: ***Consistency with City of Goleta Climate Action Plan. Implementation of the proposed Project would be consistent with applicable policies of the City of Goleta Climate Action Plan and would consistent with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions***.

As previously discussed in Section 4.10.2.3.2, the City of Goleta adopted the CAP in July 2014, which serves as the applicable Qualified GHG Reduction Strategy consistent with State CEQA Guidelines. The CAP outlines a programmatic approach to review the potential from GHG-related impacts associated with new development within the City. Any project-specific environmental document that relies on the CAP for its cumulative impacts analysis must identify specific measures applicable to the project and demonstrate the project's incorporation of the measures. The measures and strategies identified in the CAP primarily apply to City actions, though some measures and strategies are directly applicable to new land use development projects. Table 4.10-9 describes the Project's consistency with those CAP measures which are applicable to the Project.

As indicated in Table 4.10-12, the Project would be consistent with all applicable strategies and measures of the CAP. Being consistent with the City CAP, the Project is therefore considered consistent with objectives of Executive Orders S-3-05 and S-30-15, AB 32, and SB 375. Therefore, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions and which are applicable to the proposed Project, and impacts would be *adverse, but less than significant* (Class III).

Cumulative Impacts

Region of Influence

As previously discussed, climate change occurs at a global scale, with new generators of GHG emissions cumulatively contributing towards the globally

changing climate. As such, the Regional of Influence for evaluating cumulative impacts on climate change is worldwide. Therefore, all global actions which may generate new GHG emissions and contribute towards climate change would be within the Region of Influence.

Impact Assessment

As previously discussed, GHG emissions are a cumulative issue contributing to global climate change. As such, the analysis of Project impacts from GHG emissions is cumulative in nature. Given the estimated GHG emissions would be below SLOAPCD's quantified thresholds for evaluating impacts of the proposed land use development on GHGs and global climate change, as discussed under Impact GHG-1, per SLOAPCD methodology, the proposed Project would not result in cumulatively considerable contribution to a cumulatively significant impact to global climate change. Further, as demonstrated under Impact GHG-2, the Project would be consistent with all applicable plans, policies, and regulations pertaining to reducing global GHG emissions.

Table 4.10-12. Project Consistency with Applicable CAP Measures

CAP Strategy	Project Consistency
Building Energy Efficiency	
BEE-1. Continue implementation of the Residential and Commercial Building Code that Exceeds Title 24 Standards by 15 percent effective through Code Expiration (July 2014).	Consistent. The proposed Project would comply with and exceed the Chapter 15.13, *Energy Efficiency Standards,* of the Goleta Municipal GMC by also complying with the 2016 California Energy Code, as adopted in Section 15.15, *Adoption of the California Energy Code,* of the GMC, which updates and exceed the energy efficiency requirements of the 2008 California Energy Code. Further, the proposed Project would be constructed and designed to the LEED Silver Certification standards that would incorporate various resource-efficient project sustainability design features to reduce energy consumption achieve further reductions in building and site energy use.
Renewable Energy	
RE-1. Continue implementation of Ordinance Requiring Construction of Solar-Ready Buildings.	Consistent. The proposed Project would comply with City adopted Green Building Standards for Compliance proposed in addition to the requirements of CALGreen+, which include requirement for construction of solar-ready projects.

Table 4.10-12. Project Consistency with Applicable CAP Measures (Continued)

CAP Strategy	Project Consistency
Water Consumption	
WR-1. Continue Compliance with SB x7-7: Reduce Per Capita Urban Water Use.	Consistent. The proposed Project would include water conservation strategies that would reduce indoor and outdoor water use by at least 20 percent, consistent with per capita urban water use reduction requirements established under SB x7-7.
Municipal Measures	
M-1. Develop a Water Conservation Plan for City Operations.	Consistent. The proposed Project includes indoor and outdoor water conservation features and measures, including incorporation of drought-tolerant landscaping and installation of low-flow plumbing features, to conserve water and achieve a minimum reduction in water use of 20 percent, which would exceed 15 percent reduction targets of CAP Municipal Measure M-1.

4.10.2.4 Hydrology and Water Quality

Existing Setting

Regional Setting

The Project site is located in western Goleta and within the California Coastal Zone approximately 0.5-mile from the Pacific Ocean. The site is located within the Goleta Hydrologic Subarea of the South Coast Hydrologic Unit of the Central Coast Basin, which generally includes the areas south of the Santa Ynez Mountains between Point Arguello and the City of Carpinteria (CCRWQCB 2016). The region has a Mediterranean climate with warm, dry summers and cool, often wet winters. The average precipitation in the South Coast Hydrologic Unit is nearly 18 inches per year, the most of which occurs between November and March (County of Santa Barbara 2013).

Project Site

Existing conditions of the site remain relatively unchanged since preparation of the Final Mitigated Declaration in 2010 (Appendix B). As discussed therein, the Project site is located at an elevation of 120 feet above mean sea level.

Site Surface Drainage and Runoff Quantity. Based on previous site assessments, the site is underlain by sand and silty sand from the surface to approximately 30 feet below grade. The sight is currently vegetated by eucalyptus trees and

nonnative grasses with no impervious surfaces. The site topography has an average slope of 1.4 percent and generally slopes toward the south, with the exception of a small area in the northeast corner of the property that slopes north towards the UPRR right of way. During rainfall events, storm water runoff sheet flows southeasterly and southerly until draining into the Hollister Avenue right-of-way, where it is then conveyed easterly in a gutter until entering a drainage inlet and subsequent storm drain approximately 880 feet down Hollister Avenue (Flowers & Associates, Inc. 2017; Appendix I). In the northeast corner of the site, runoff from a small area flows northward over an exposed embankment down to the UPRR tracks. This has caused significant erosion and localized head cutting into this portion of the property. This railroad embankment is very steep and heavily eroded along the entire parcel frontage. Table 4.10-13 provides a summary of the existing runoff generated during pre- and post-Project conditions during rainfall events of variable magnitude. Detailed hydraulic calculations are provided in the Drainage Analysis prepared by Flowers & Associates, Inc. for the proposed Project (Appendix I).

Table 4.10-13. Existing Site Estimated Storm Water Runoff

Storm Return Period	Estimated Pre-Project Peak Flows (cfs)	Estimated Post-Project Peak Flows (cfs)	Difference (cfs)
2-year	0.72	0.71	-0.01
5-year	1.47	0.21	-1.26
10-year	2.01	1.47	0.54
25-year	2.71	1.74	0.97
50-year	3.22	1.94	1.28
100-year	3.72	2.11	1.61

Source: Flowers & Associates, Inc. 2017; Appendix I.

Surface Water Quality. There are no streams or other water bodies on or adjacent to the site. The nearest water features to the site is Devereux Creek which bisects the Hideaway residential development, located approximately 700 feet west of the Project site and separated by the Hideaway residential development.

Flooding and Hydrologic Hazards. The Project site is not located within a designated flood hazard area, including those defined by the Federal Emergency Management Agency (FEMA). Although the site is located within the CZ of the City, the site is not located within a tsunami inundation area, as mapped by the University of Southern California for the California Emergency Management Agency (California Department of Conservation 2009).

Regulatory Setting

Federal

Clean Water Act. In 1972, the Federal Water Pollution Control Act (later referred to as the Clean Water Act [CWA]) was amended to require that the discharge of pollutants into waters of the U.S. from any point source be effectively prohibited unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, the CWA was again amended to require that the USEPA establish regulations for the permitting of storm water discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. The regulations require that Municipal Separate Storm Sewer System (MS4) discharges to surface waters be regulated by an NPDES permit.

The CWA requires states to adopt water quality standards for water bodies and have those standards approved by USEPA. Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, and fishing), along with water quality criteria necessary to support those uses. Water quality criteria include quantitative set concentrations, levels, or loading rates of constituents—such as pesticides, nutrients, salts, suspended sediment, and fecal coliform bacteria—or narrative statements that represent the quality of water that support a particular use.

Section 303 of the CWA requires that the state adopt water quality standards for surface waters. When designated beneficial uses of a particular water body are being compromised by water quality, Section 303(d) of the CWA requires identifying and listing that water body as impaired. Once a water body has been deemed impaired, a TMDL must be developed for each impairing water quality constituent. A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (often with a “factor of safety” included, which limits the total load of pollutants to a level well below that which could cause the standard to be exceeded). Once established, the TMDL is allocated among current and future dischargers into the water body.

Direct discharges of pollutants into waters of the U.S. are not allowed, except in accordance with the NPDES program established in Section 402 of the CWA. Non-point source discharges to storm water are regulated under storm water NPDES permits for municipal storm water discharges, industrial activities, and construction activities. These permits require development and adherence to Storm Water Pollution Prevention Plans (SWPPP).

Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into waters of the U.S., which are those waters that have a connection to interstate commerce, either direct via a tributary system or indirect through a nexus identified in the USACE regulations.

Under Section 401 of the CWA, the SWRCB must certify all activities requiring a 404 permit. The RWQCB regulates these activities and issues water quality certifications for those activities requiring a 404 permit.

State

Porter-Cologne Water Quality Control Act. The federal CWA places the primary responsibility for the control of water pollution and planning the development and use of water resources, with the individual states; however, it does establish certain guidelines for the states to follow in developing their programs.

California's primary statute governing water quality and water pollution is the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), which grants the SWRCB and RWQCBs broad powers to protect water quality and is the primary vehicle for implementation of California's responsibility under the CWA. The Porter-Cologne Act grants the SWRCB and RWQCBs the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, oil, or petroleum product.

State Water Quality Control Board. The SWRCB is responsible for statewide regulation of water resources. SWRCB's mission is to "ensure the highest reasonable quality for waters of the state, while allocating those waters to achieve the optimum balance of beneficial uses." SWRCB thus has joint authority over water allocation and water quality protection. SWRCB supports the efforts of the individual RWQCBs, of which there are nine statewide. These are semiautonomous and consist of Board members appointed by the Governor and confirmed by the Senate. Regional boundaries are based on watershed, and water quality requirements are based on the unique differences in climate, topography, geology, and hydrology for each watershed. The City of Goleta and County of Santa Barbara are located within the jurisdiction of the Central Coast Regional Water Quality Control Board (CCRWQCB).

Each RWQCB makes critical water quality decisions for its region, including setting standards, issuing waste discharge requirements, determining compliance with those requirements, and taking appropriate enforcement actions. Water quality standards are defined in each RWQCB's respective Basin Plan. Basin plans must conform to the policies set forth in the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) and established by SWRCB in its state water policy. The Porter-Cologne Act also provides that an RWQCB may include in its region a regional plan with water discharge prohibitions applicable to particular conditions, areas, or types of waste. The RWQCBs are also authorized to enforce discharge limitations, take actions to prevent violations of these limitations from occurring, and conduct investigations to determine the status of quality of any of the waters of the state within their region. Civil and criminal penalties are also applicable to

persons who violate the requirement of the Porter-Cologne Act or SWRCB/RWQCB orders.

Water Quality Control Plan, Central Coast Basin (Basin Plan). The Central Coast RWQCB has adopted a Water Quality Control Plan (Basin Plan) for its region of responsibility, which includes the City of Goleta and County of Santa Barbara. The RWQCB has delineated water resource area boundaries based on hydrological features. For purposes of achieving and maintaining water quality protection, specific beneficial uses have been identified for each of the hydrologic areas described in the Basin Plan. The Basin Plan also establishes implementation programs to achieve water quality objectives to protect beneficial uses and requires monitoring to evaluate the effectiveness of the programs. These objectives must comply with the state anti-degradation policy (SWRCB Resolution No. 68-16), which is designed to maintain high-quality waters while allowing some flexibility if beneficial uses are not unreasonably affected.

Beneficial uses of water are defined in the Basin Plan as those necessary for the survival or wellbeing of humans, plants, and wildlife. Examples of beneficial uses include drinking water supplies, swimming, industrial and agricultural water supply, and the support of freshwater and marine habitats and their organisms.

The Basin Plan has established narrative and numeric water quality objectives that, in the Regional Board's judgment, are necessary for the reasonable protection of beneficial uses and for the prevention of nuisances. If water quality objectives are exceeded, the RWQCB can use its regulatory authority to require municipalities to reduce pollutant loads to the affected receiving waters. The RWQCB utilizes water quality criteria in the form of "scientific information developed by the USEPA regarding the effect a constituent concentration has on human health, aquatic life, or other uses of water" to develop its water quality objectives.

Discharge Permits. On September 2, 2009, SWRCB adopted the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Order 2009-0009-DWQ; NPDES No. CAS000002). In accordance with NPDES regulations, the state of California requires that any construction activity disturbing 1 acre or more of soil comply with the Construction General Permit. To obtain authorization for proposed storm water discharges pursuant to this permit, the landowner (discharger) is required to submit a Permit Registration Documents, including a Notice of Intent (NOI), risk assessment, site map, SWPPP, annual fee, and signed certification statement to SWRCB. Dischargers are required to implement Best Management Practices (BMPs) meeting the technological standards of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate storm water pollution. BMPs include programs, technologies, processes, practices, and devices that control, prevent, remove, or reduce pollution. Permittees must also maintain BMPs and conduct inspection and sampling programs as required by the permit. Dischargers

are also required to comply with monitoring and reporting requirements to ensure that discharges comply with the numeric action levels and numeric effluent limitations specified in the permit.

Local

Stormwater Technical Guide for Low Impact Development. The Stormwater Technical Guide for Low Impact Development, adopted by the County of Santa Barbara in February 2014, establishes a guide for compliance with Post Construction Requirements (PCRs) adopted by the CCRWQCB in July 2013. In addition to detailing the requirements of the PCRs, the Stormwater Technical Guide for Low Impact Development interprets, clarifies, and adds to the PCRs. To assist project applicants in meeting these requirements, the City adopted the County's Stormwater Technical Guide for Low Impact Development in March 2014.

City of Goleta Storm Water Management Plan. Approved by the CCRWQCB in February 2010, the City's Storm Water Management Plan (SWMP) is a comprehensive program to establish and implement BMPs to reduce the discharge of storm water pollutants into water bodies and to provide and improve water quality within the City. Per the SWMP, the City is identified as having a MS4 requiring coverage under the NPDES General Permit for Storm Water Discharges from Small MS4s, Water Quality Order No. 2003-0005-DWQ and CA2000004 (General Permit). An outline of the implementation progress of the SWMP is provided the Annual Report. The most recent Annual Report submitted for the City's SWMP to the CCRWQCB in August 2013.

Goleta General Plan/Coastal Land Use Plan Conservation Element (2006). The GP/CLUP Conservation Element has adopted policies to prevent the degradation of the quality of groundwater basins and surface waters in and adjacent to the City.

The following are City General Plan Conservation Element policies which would apply to the Project:

- Conservation Element Policy 10.1 establishes that all new development shall not result in the degradation of water quality of groundwater or surface water, and urban runoff pollutants shall not be discharged or deposited such that these resources are adversely affected.
- Conservation Element Policy 10.2 requires new development to be sited and designed to protect water quality and minimize impacts to coastal water through incorporating measures to protect important areas of benefit to water quality, limiting impervious surface area, and limiting land disturbance.
- Conservation Element Policy 10.3 requires new development to minimize impacts to water quality from runoff from nonpoint sources, consistent with the City's SWMP and the CCRWQCB. The policy also requires all BMPs be designed in accordance with applicable standards.

- Conservation Element Policy 10.6 establishes storm water requirements, including requirement for use of BMPs, for various types of development. For commercial uses, which are most applicable to the proposed development, development shall use BMPs to control polluted runoff from structures, parking, and loading areas. Outdoor materials storage and trash storage areas shall be designed using BMPs to prevent storm water contamination from stored materials, loose trash, and debris.
- Conservation Element Policy 10.7 requires new development to protect natural beneficial water quality features of a site and requires preparation and implementation of Drainage Plans and Stormwater Management Plans for construction and post-development phases of the project.
- Conservation Element Policy 10.8 requires new development to provide for ongoing maintenance of BMP measures and establishes responsibilities for the maintenance and inspection of BMPs for a development.
- Conservation Element Policy 10.9 requires landscaping be designed to control erosion and shall consist of native or drought-tolerant noninvasive plants to minimize the need for fertilizers, pesticides, herbicides, and excessive irrigation.

Impact Analysis

Methodology and Significance Thresholds

CEQA Guidelines Appendix G. In accordance with Appendix G of the 2017 CEQA Guidelines, implementation of the proposed Project may have a significant adverse impact on hydrology and water quality if it would:

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop a level which would not support existing land uses or planned uses for which permits have been granted).
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the site or area, including through the alteration of a course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantially additional sources of polluted runoff.
- Otherwise substantially degrade water quality.
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- Exposure people or structures to significant loss, injury or death involving flooding, including flooding as a result of the failure or a levee or dam.
- Inundation by seiche, tsunami, or mudflow.

City of Goleta Environmental Thresholds and Guidelines Manual. The City's *Environmental Thresholds and Guidelines Manual* specifies the following significance thresholds relating to hydrology and water resources:

Hydrology and Drainage. The Project would result in a significant impact to surface hydrology and drainage if it would:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of amount of surface runoff in a manner that would result in flooding, increased erosion, or increased sedimentation on- or off-site.
- Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or increase runoff into naturally drained areas without storm drains.

Surface Water and Groundwater Quality. The Project would result in a significant surface water or groundwater impact if its construction or operation results in:

- Be located within an urbanized area of the County and the project construction or redevelopment individually or as a part of a larger common plan of development or scale would disturb more than one (1) or more acres of land.
- Increase the amount of impervious surfaces on a site by 25 percent or more.
- Result in channelization or relocation of a natural drainage channel.
- Discharge pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the RWQCB's Basin Plan or otherwise impair the beneficial uses of a receiving waterbody.
- Result in a discharge of pollutants into a "impaired" waterbody that has been designated as such by the SWRCB or the RWQCB under Section 303(d) of the Federal Water Pollution and Control Act (i.e., the CWA).

- Result in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.
- Substantially degrade groundwater quality.
- Result in failure to comply with the City's Stormwater Program.

As discussed in the Final Mitigated Declaration, the proposed Project would not place housing or new structures within a 100-year flood hazard area or area subject to inundation by hydrologic hazard. In addition, the Project would not expose people or structures to a significant risk of loss, injury, or death from hydrologic hazards. As such, associated impacts are considered non-existent (Class IV) and are not further discussed in this section.

As further identified in the Final Mitigated Declaration, the project site lies within the West Sub-basin of the Goleta Groundwater Basin which is not an area where significant recharge to groundwater supplies used for urban and agricultural use typically occurs. Groundwater in this area of the Goleta Groundwater Basin is generally quite deep and not suitable as a source of potable water. Therefore, project impacts related to groundwater supply and recharge are be considered less than significant (Class III), and are not further discussed.

Further, the Final Mitigated Declaration identified mitigation measures necessary for the Project to reduce impacts to hydrology and water quality. Since preparation of the Final Mitigated Declaration in 2010 (Appendix B), the proposed Project has undergone revisions in the design and list of proposed measures incorporated into the Project to reduce effects on the environment and/or ensure consistency with City plans and policies. These measures which are incorporated into the proposed Project as design features or have been completed for the Project since release of the Final Mitigated Declaration include many of the measures identified as required mitigation measures in the Final Mitigated Declaration. As further discussed below, several of the mitigation measures identified in the Final Mitigated Declaration are no longer applicable to the proposed Project, as comparable or improved measures have been incorporated into the design of the Project.

Project Impacts

Impact HWQ-1: Project Construction. ***Project grading and construction activities would subject soil surfaces to erosion with the potential to discharge sediments and various pollutants into receiving waters. However, compliance with National Pollutant Discharge Elimination System NPDES requirements would minimize discharge of pollutants and ensure appropriate management of site runoff during construction of the Project.***

The proposed Project would involve construction of a new 11,600 square foot, two-story fire station. Project implementation would include construction of landscape and hardscape surfaces. Construction of the Project would require grading of the site, estimated at approximately 1,350 cubic yards of cut and 2,250 cubic yards of

fill which could result in erosion of soils and sedimentation. During storm events, runoff could carry pollutants such as oils, chemicals, sediments, and construction debris offsite and degrade water quality. The presence and use of large construction machinery within close proximity of the creek has the potential to result in a spill of fluids, such as oil, gasoline, and hydraulic fluids, which could be mobilized by storm water runoff. In addition, soil erosion could result in the creation of on-site rills and gully systems, clog existing and planned drainage channels, breach erosion control measures, and transport soil into down-gradient areas. Soil movement would occur in these exposed graded or excavated areas, as well as in unprotected drainage culverts or basins.

Impacts would be minimized during all phases of Project construction through compliance with required state and local regulations described in Section 4.10.2.4.2, *Regulatory Setting*, including the Construction General Permit. Implementation of and compliance with the requirements of the Construction General Permit would ensure the construction site and activities are managed to effectively control site runoff through BMPs, BAT, BCTs, and a SWPPP. Given the Project would be subject to full compliance with regulations adopted for the purpose of protecting water quality from construction activities, impacts from construction of the Project on hydrology and water quality are considered *adverse, but less than significant* (Class III).

The Final Mitigated Declaration (Appendix B) identified several mitigation measures required to reduce impacts to hydrology and water quality from potential discharge of polluted runoff. However, the current design of the proposed Project, design of proposed bioretention basins and storm water controls, compliance with the December 2017 Stormwater Control Plan, and requirement for compliance with existing standards and regulations relating to runoff and water quality would effectively ensure implementation of those measures identified in the Final Mitigated Declaration, without requiring further mitigation.

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on hydrology and water quality would be *adverse, but less than significant* (Class III).

Impact HWQ-2: ***Site Drainage. The Project would alter on-site drainage patterns and increase impermeable surfaces, increasing site runoff. Implementation of the Project would include construction and design of on-site storm water drainage facilities that would manage storm water runoff consistent with the City's Storm Water Management Plan***.

A Drainage Analysis was prepared by Flowers & Associates in December 2017 (Appendix I) which analyzed the drainage characteristics of the proposed Project. In addition, a Stormwater Control Plan was also prepared by Flowers & Associates in May 2017 (Appendix I) for the proposed Project, which identified on-site storm

water control measures implemented into the design of the Project. As discussed in the Drainage Analysis, total impervious surface area is estimated to be approximately 84 percent of the site after completion of the Project, which would substantially reduce infiltration and increase sheet flow on the site. However, due to the amount of increased hardscape proposed for the site, storm water control measures and LID design strategies have been proposed and incorporated into the design of the Project which would manage site runoff.

As discussed in Section 2.5.4, *Stormwater Drainage and Utilities,* all proposed on-site impervious surface development would drain to storm water control measures consisting of a 2,500-square-foot bioretention basin or to a 3,000-square-foot permeable paver parking lot, both of which would be capable of receiving calculated site storm water runoff and would reduce overall quantity of runoff (Appendix I; see Table 4.10-13). The bioretention basin will utilize the sand/compost planning medium specified in the Santa Barbara County's Technical Guide and the CCRWQCB 's Post Construction Requirements and is designed to exceed storm water storage volume capacity by over 1,000 cubic feet, as calculated for the site by the Central Coast Region Stormwater Control Measure Sizing Calculator. As further provided in the Drainage Analysis and Stormwater Control Plan, the Project's proposed storm water control measures are designed to achieve and exceed storm water treatment requirements. Given the Project would include construction of storm water control measures in conformance with existing regulations and which would exceed storm water treatment requirements, impacts of the Project from storm water runoff are considered *adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on hydrology and water quality would be *adverse, but less than significant* (Class III)

Impact HWQ-3: ***Water Quality. Project operations would result in the potential to adversely affect water quality due to polluted runoff and sedimentation, but proposed on-site storm water control measures would manage, retain, and treat site runoff, ensuring polluted urban runoff does not leave the site or adversely affect quality of receiving waters.***

Operation of the proposed Project would involve the use of fuel and oil/grease that would result from on-site vehicle and equipment maintenance and washing of emergency vehicles, and "household" cleaners and chemicals associated with building maintenance. However, the Project would be subject to federal, state, and local regulations pertaining to the storage and use of any hazardous materials/waste, including obtaining appropriate permits, training, and agency inspections. In addition, as discussed under impact HWQ-2 above, the Project would include implementation of a number of BMPs and LID measures designed to reduce potential for discharge of pollutants from runoff. Implementation of the

Project would include construction and operation of storm water control measures and other water quality engineering controls, including a bioretention basin designed to meet the standards of applicable storm water control regulations, which would receive runoff from the site that may contain any pollutants and treat runoff in exceedance of applicable storm water treatment requirements. Implementation of these Project features and adherence with applicable regulations would ensure the Project does not result in the discharge of polluted runoff such that water quality may be adversely affected. Therefore, potential long-term water quality impacts to both surface water and groundwater, along with potential impacts associated with violation of any water quality standards or waste discharge requirements, would be considered *adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on hydrology and water quality would be *adverse, but less than significant* (Class III)

Cumulative Impacts

The Region of Influence for evaluating cumulative impacts on hydrology and water quality include those areas with past, present, and reasonably probable projects which would have the potential to contribute towards an exceedance of established water quality standards for the local hydrologic area, particularly to those of local creeks and water bodies such as Bell Creek, Devereux Creek, and the Pacific Ocean.

Cumulative hydrology and water quality impacts result from increased impervious surface runoff, accelerated erosion, and pollutant loading generally associated with urban and rural development. Most of the proposed project's contribution to cumulative hydrology and water quality impacts would occur during the construction phase. Similar to the proposed Project, all other pending projects within the Region of Influence would also be subject to site-specific requirements for storm water management during construction and post-construction, along with all other applicable federal, state, and local regulations governing development and the protection of water quality. Other pending projects would also undergo the same drainage design review by the City and RWQCB to ensure project implementation would occur in compliance with adopted policies and regulations, including requirements for implementations of BMPs, LID measures, and a SWPP. Given the Project would implement appropriate storm water control measures and would be subject to compliance with federal, state, and local regulations pertaining to water quality, the Project would not contribute significantly to a cumulatively considerable impact to regional water quality and hydrology.

4.10.2.5 Utilities and Service Systems

Existing Setting

Water Supply and Demand

Water services within the City are provided by the Goleta Water District (GWD), whose service area covers approximately 29,000 acres extending from the Santa Barbara city limits in the east to unincorporated areas of the County to the west. The GWD service area is bounded by the Pacific Ocean to the south and the foothills of the Santa Ynez Mountains to the north. The GWD service area includes the unincorporated communities of the Eastern Goleta Valley and Isla Vista, the University of California, Santa Barbara, and the Santa Barbara Municipal Airport. In 2017, the GWD provided water services to approximately 87,000 residents within its services area (GWD 2018).

Table 4.10-14 provides a summary of the current and projected water supplies and demands for the GWD. As shown, water supplies for the GWD under normal conditions are primarily comprised of surface water entitlements from the Cachuma Water Project (70.2 percent), imported supplies from the State Water Project (13.9 percent), local groundwater (8.3 percent), recycled water (7.6 percent). Currently, the GWD does not rely on any supplies provided through State Water Project allocation purchases. Under drought conditions, such as those experienced in 2011-2015, the GWD becomes much more reliant on local groundwater supplies. Currently, the GWD is projected to have a surplus of 150 acre feet per year (AFY) (GWD 2017).

Table 4.10-14. Current and Project Water Supply/Demand for GWD

Supply Source	Current Conditions (2017)			Future Conditions (2035)		
	Normal Year (AFY)	Single Dry Year (AFY)	Multiple Dry Years (AFY)	Normal Year (AFY)	Single Dry Year (AFY)	Multiple Dry Years (AFY)
Surface Water	9,811[1]	9,322	3,884	9,849	9,322	3,941
State Water (Import)	1,942	2,427	3,381	2,493	3,197	2,347
Groundwater	1,160	1,923	5,750	2,449	3,839	9,928
Recycled Water	1,061	985	985	1,225	1,137	1,137
Allocations	0	0	0	219	0	0
Total Supply	**13,974**	**14,657**	**14,000**	**16,235**	**17,495**	**16,903**
Total Demand	**13,824**	**14,657**	**14,657**	**16,351**	**17,495**	**17,495**
Net Surplus (Deficit)	***150***	***0***	***(657)***	***(116)***	***0***	***(592)***

[1] While the GWD's annual entitlement to Cachuma Project Water is 9,322 AFY, the long-term average reflected above includes unused carryover supplies from previous years and excess water that becomes available when Cachuma Reservoir spills (on average, every 3 years); and is therefore higher than the entitlement amount.
Source: GWD 2017.

Wastewater

Wastewater services within the Project area are provided by the Goleta West Sanitary District (GWSD) which serves approximately 6,100 connections to over 35,000 persons. The GWSD operates and maintains approximately 62 linear miles of sewer lines and two pump stations. Wastewater within the GWSD services area is conveyed to the regional Full Secondary Treatment Plan that is owned by the Goleta Sanitary District (GSD), and which has a treatment capacity of 7.64 million gallons per day (MGD) as permitted under the NPDES permit issued by the U.S. EPA in concurrence with the CCRWQCB. As of 2013, the GSD wastewater treatment plant had an average daily dry weather flow of 4.8 MGD, with an unused treatment capacity of 2.84 MGD (GSD 2013). The GWSD is one of several public agencies which are contractual users of the plant and has a treatment capacity right of 40.78 percent, or 3.11 MGD. As of 2016, GWSD influent flows equated to only 1.7 MGD, allowing for a remaining unused treatment capacity of 1.41 MGD (GWSD 2016).

At the Project site, a 6-8" trunk line is located along the Hollister Avenue corridor which collects and conveys wastewater collected from development along Hollister Avenue and from development located farther to the west, including the Ritz-Carlton Bacara Resort. The GWSD's wastewater collection system is in good condition with few major repairs, while the districts two pump stations are in good condition and well maintained, and have adequate capacity to meet current and projected needs for the next ten years (GWSD 2018).

Solid Waste

Solid waste services, including refuse, recycling, and greenwaste collection, in the City and Project vicinity are provided by MarBorg Industries. All non-hazardous waste collected in the City is transported to and handled at the South Coast Recycling and Transfer Station (SCRTS) and the Tajiguas Landfill, both of which are operated and maintained by the County of Santa Barbara Public Works Department, Resource Recovery & Waste Management Division (RRWMD). The SCRTS serves as a central collection point for a large portion of the non-hazardous waste collected in the South Coast region of the County and is capable of processing 550 tons per day (tpd) of waste, and is home to a recycling center capable of processing 200 tpd of recyclable waste (County of Santa Barbara Public Works Department 2018a). The Tajiguas Landfill serves the South Coast, Santa Ynez, and New Cuyama Valleys regions of the County and is a Class III waste management unit capable of processing up to 1,500 tpd of nonhazardous municipal waste (CalRecycle 2018; County of Santa Barbara Public Works Department 2018b). Based on current waste disposal rates, disposal capacity of the landfill is expected to be reached, and the facility closed, in 2023. However, in July 2016, the County Board of Supervisors approved the Tajiguas Resource Recovery Project, which would modify current waste management operations at the landfill through the addition of a Materials Recovery Facility, a Dry Fermentation Anaerobic Digester Facility, and a Compost Management Unit which

would result in a 60 percent reduction in waste disposal, extending the anticipated closure date to the year 2036 (RRWMD 2018).

Regulatory Setting

Federal

Water Supply

There are no federal regulations that pertain to potable water services or resources.

Wastewater

Clean Water Act. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the USEPA the authority to implement pollution control programs, such as setting wastewater standards for industry. The statute's goal is to regulate all discharges into the nation's waters and to restore, maintain, and preserve the integrity of those waters. The CWA sets water quality standards for all contaminants in surface waters and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges, requires states to establish site-specific water quality standards for navigable bodies of water, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA also funds the construction of sewage treatment plants and recognizes the need for planning to address nonpoint sources of pollution.

Solid Waste

There are no federal regulations that pertain to solid waste services or resources.

State

Water Supply

California Governor's Drought Declarations. California Governor Brown on January 17, 2014 proclaimed a State of Emergency and directed state officials to take all necessary actions to make water immediately available. On April 25, 2014, the Governor issued an EO to speed up actions necessary to reduce harmful effects of the drought, and he called on all Californians to redouble their efforts to conserve water. On December 22, 2014 Governor Brown issued EO B-28-14 extending directives to the Department of Water Resources and the Water Board to take actions necessary to make water immediately available through May 31, 2016 and to extend CEQA suspensions for certain water supply projects. On April 1, 2015, the governor issued EO B-29-15. Key provisions include ordering the

State Water Resources Control Board (SWRCB) to impose restrictions to achieve a 25 percent reduction in potable urban water usage through February 28, 2016.

On May 9, 2016, the governor issued EO B-37-16, establishing longer-term water conservation measures through the end of January 2017, which include monthly water use reporting, strengthened urban drought contingency plans, elimination of wasteful water use practices, and mandated adjustments to emergency water conservation regulations and restrictions during extended drought conditions. These extended water conservation measures recognize differing water supply conditions for many communities, and require that communities develop water efficiency measures and conservations plans specific to the conditions of their respective water supply. The Governor's drought declaration also calls upon local urban water suppliers and municipalities to implement their local water shortage contingency plans immediately in order to avoid or forestall outright restrictions that could become necessary later in the drought season. EO B-40-17, signed on April 7, 2017 ended the drought state of emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne, where emergency drinking water projects will continue to help address diminished groundwater supplies. However, the EO maintains water reporting requirements and prohibitions on wasteful practices. Further, EO B-37-16, and the associated water use efficiency framework, remains in effect (SWRCB 2018).

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Act of 1969 (Cal Water Code §13000 et seq.) is the water quality control law for California. The act established the SWRCB and divided the state into nine regional basins, each under the jurisdiction of a RWQCB. The SWRCB is the primary state agency responsible for the protection of California's water quality and groundwater supplies. The RWQCBs carry out the regulation, protection, and administration of water quality in each region. Each RWQCB is required to adopt a water quality control plan or basin plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems.

Urban Water Management Planning Act. The Urban Water Management Planning Act (California Water Code Division 6, Part 2.6, Sections 10610 et seq.) was developed due to concerns over potential water supply shortages throughout California. It requires information on water supply reliability and water use efficiency measures. Urban water suppliers are required, as part of the Act, to develop and implement UWMPs to describe water supply, service area demand, population trends and efforts to promote efficient use and management of water resources. An UWMP is intended to serve as a water supply and demand planning document that is updated every 5 years to reflect changes in the water supplier's service area including water supply trends, and conservation and water use efficiency policies. Specifically, municipal water suppliers that serve more than 3,000 customers or provide more than 3,000 AFY must adopt an UWMP.

2009 Water Conservation Act (SB x7-7). SB x7-7 was enacted in November 2009, requiring all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita urban water use by December 31, 2020 through water use targets for urban water suppliers, water management plans, and best management practices. Urban retailers can achieve the SB x7-7 goal using one of four specified methods:

a. Option 1: 80 percent of baseline use (reduction of 20 percent).
b. Option 2: Sum of specified performance standards.
c. Option 3: 95 percent of California Department of Water Resources Hydrologic Region target from draft 20x2020 plan.
d. Option 4: A flexible alternative designed to adjust to local circumstances.

Urban retail water suppliers must monitor and report compliance on an individual or regional basis. Individual urban retail water suppliers are not required to achieve a reduction in urban per capita water use greater than 20 percent. Compliance with the water reduction target is required for continued state water grants and loan eligibility. After 2021, failure of urban retail water suppliers to meet their targets establishes a violation of law for administrative or judicial proceedings.

Wastewater

State Water Resource Control Board Order No. 2006-0003. The SWRCB General Waste Discharge Requirement for Sanitary Sewer Systems (SWRCB Order No. 2006-0003) requires wastewater agencies to evaluate and rehabilitate sewer systems, with a target of zero sewer overflows.

Health and Safety Code Section 17921.3. Requires low-flush toilets and urinals in all buildings, including commercial, residential, institutional, and industrial buildings.

Solid Waste

AB 341. This state law was enacted in 2011 and amends the Public Resources Code relating to solid waste to set a goal for the state to recycle 70 percent of waste by year 2020. The bill identifies composting of organic materials as a method of attaining this goal.

Public Resources Code Division 30, Part 2, Chapter 4, Section 41701. The Division and Chapter of the Public Resources Code requires all jurisdictions in the state to plan and manage disposal capacity for waste that cannot be reduced, recycled, or composted.

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. The California Global Warming Solutions Act of 2006 sets a goal of reduction of all GHGs generated in the state to 1990 levels by year 2020. CARB has adopted a

scoping plan that includes recycling and landfill methane capture as key components to achieve reductions in GHGs.

Local

Water Supply

City of Goleta Coastal Zoning Ordinance (CZO). CZO Chapter 35, Article II, Section 35-60.5 requires prior to approval of a project that there are adequate public services, including but not limited to fire protection, water supply, sewage disposal, and police protection to serve the project.

Goleta Water District Ordinance No. 91-01, *The SAFE Water Supplies Ordinance of 1991*. In 1991, voters of the GWD passed the SAFE Water Supplies Ordinance which sets forth conditions the GWD must meet in order to approve new or additional water connections. Specifically, the ordinance prohibits the GWD from releasing potable water to new or additional service connections except when all of the following conditions are met:

1. The GWD is receiving 100 percent of its deliveries normally allowed from Cachuma.
2. The GWD has met legal obligations in the Wright Judgement.
3. There is no water rationing.
4. The GWD has met its obligation to the Annual Storage Commitment to the Drought Buffer.

GWD Water Conservation Plan (2010). The GWD on December 23, 1994 became a participant of the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding Regarding Urban Water Conservation in California (MUO). The Water Conservation Plan was prepared by the GWD to serve as an interim plan for achieving state-mandated water conservation measures and compliance with the CUCWCC MOU BMPs which were updated and adopted in July 2009. The GWD Water Conservation Plan includes policies, programs, regulations, and strategies for achieving increased water conservation. At the time of preparation of the Water Conservation Plan, the GWD was in the process of restructuring and updating the GWD operating budget, and in 2013, a Technical Report on Optimizing the Goleta Water District Water Conservation Program was prepared to assess if the restructure and optimizations remain the optimal strategy for achieving state-mandated water conservation requirements. The 2013 report highlighted a number of strategies for the GWD to develop as part of its conservation program to improve water conservation and compliance with state-mandated water conservation requirements.

Wastewater

City of Goleta Inland Zoning Ordinance. Section 35-317.7(1)(d) of Article 3, Chapter 35 of the GMC requires prior to approval of a project that there are adequate public services, including but not limited to fire protection, water supply, sewage disposal, solid waste, and police protection to serve the project.

Solid Waste

Goleta Municipal Code, Chapter 8.10, Integrated Waste Management. Chapter 8.10 of the GMC establishes rules, regulations, and standards for the collection, handling, disposal, and management of municipal solid wastes. In March 2013, Chapter 8.10 was amended to require a minimum diversion of 65 percent of all construction and demolition waste for any project involving the construction of new structures.

City of Goleta Inland Zoning Ordinance. Section 35-317.7(1)(d) of Article 3, Chapter 35 of the GMC requires prior to approval of a project that there are adequate public services, including but not limited to fire protection, water supply, sewage disposal, solid waste, and police protection to serve the project.

Impact Analysis

Methodology and Significance Thresholds

CEQA Guidelines Appendix G. In accordance with Appendix G of the 2017 CEQA Guidelines, impacts to utilities and service systems would be potentially significant based upon the following thresholds of significance:

Water Supply. The Project would result in a significant impact related to water supplies if it would:

- Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have insufficient water supplies available to service the project from existing entitlements and resource, or results the need new or expanded entitlements.

Wastewater. The Project would result in a significant impact related to wastewater if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the orientation of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Solid Waste. The Project would result in a significant impact related to solid waste if it would:

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Fail to comply with federal, state, and local statues and regulations related to solid waste.

City of Goleta Environmental Thresholds and Guidelines Manual. The City's *Environmental Thresholds and Guidelines Manual* specifies the following significance thresholds relating to utilities and service systems:

> *Water Supply.* The City has adopted thresholds pertaining to groundwater supply for projects involving groundwater wells. The Project does not involve groundwater wells; therefore, these City thresholds are not applicable.
>
> *Wastewater.* The City has not adopted any thresholds for impacts related to sewer service, wastewater treatment, or storm water drainage facilities.
>
> *Solid Waste.* The City's *Environmental Thresholds and Guidelines Manual* provides both project-specific and cumulative thresholds for solid waste generation from discretionary development. A project would result in a significant impact on the City's landfill capacity if it would generate more than 196 tons of solid waste per year, after a 50 percent reduction credit is given due to recycling efforts. If a project would generate more than 40 tons per year of solid waste, the project is considered to have a cumulatively significant contribution, as the project-specific threshold is based on a cumulative growth scenario.

The Final Mitigated Negative Declaration prepared for the Fire Station 10 Project in 2010 identified a number of potentially significant impacts related to utilities and service systems, and included a number of mitigation measures required to reduce impacts to a less than significant degree. These mitigation measures included requirement for receipt of a Connection Permit from the GWSD, a Can and Will Serve letter from the GWD, requirement for use of recycled water for landscape irrigation, minimization of outdoor and indoor water use, use of reclaimed/non-potable water for construction dust suppression, and reuse/recycling of construction debris. Since preparation of the Final Mitigated Negative Declaration

in 2010, the proposed Project, as analyzed in this EIR, has undergone changes in the implementation and design of the fire station which has resulted in incorporation of many of these features. Further, several of the features identified in the Final Mitigated Negative Declaration as required mitigation would be addressed or required through existing regulations, such as required compliance with GMC Chapter 8.10 which would require a minimum diversion of 65 percent of construction and demolition waste. Similarly, compliance with the GWD and GWSD standard procedures for review of a Project for determination of adequate service availability and issuance of appropriate Can and Will Serve letters would also be required. For these reasons and given no significant impacts to utilities and service systems has been identified as analyzed below, the mitigation measures identified in the Final Mitigated Negative Declaration no longer apply to this Project, and have not been incorporated as required measures in this EIR.

Project Impacts

Impact UT-1: ***Additional Demand for GWD Water Supplies. The Project would result in a net increase in water demand by approximately 1.17 acre-feet per year (AFY), which could be accommodated by existing and projected available Goleta Water District (GWD) water supplies. No infrastructure improvements would be required, and impacts to water supplies and infrastructure would not be significantly adverse.***

The Project site is currently undeveloped with no associated water demand. Implementation of the Project and construction of the site for a new fire station would result in additional demand for water supplies and services provided by the GWD. Table 4.10-15 provides a summary of water demands for the Project based on City water demand factors and average water demands associated with other Santa Barbara County Fire District (SBCFD) fire station facilities and activities. As summarized therein, the Project would result in a net increase in demand for an estimated 1.17 AFY of water (City of Goleta 2002; MFPD 2016). However, this estimate does not include consideration of those water conservation strategies described in Section 2.0, *Project Description.* The water demand estimated in Table 4.10-15 therefore provides a conservative estimate of Project water demands.

Table 4.10-15. Proposed Project Water Demand

	Demand Source	Demand Factor	Multiplier	Potable Water Demand (AFY)
Project Use	Structures – Firefighters[1]	0.0737 AFY/ person	3	0.22
	Structures – Admin.[2]	0.15 AFY/ 1,000 square feet (sf)	1,297 sf	0.19
	Landscaping[3]	1 AFY/ acre	0.21	0.21
	Topping off of Trucks[4]	150 gallons/ fill	52 fills per year	0.024
	Hose Training[5]	8,000 gallons/ year	N/A	0.025
	Miscellaneous[6]	N/A	N/A	0.50
Total Project Use				**1.17**

[1] Uses residential factors from Table 7 of City of Goleta Environmental Thresholds and Guidelines Manual, Chapter 11 Groundwater Thresholds Manual, assumes 3 rotating on duty firefighters living at the fire station for 24-hour shifts.
[2] Uses factors for "Office" from Table 7 of City of Goleta Environmental Thresholds and Guidelines Manual, Chapter 11 Groundwater Thresholds Manual.
[3] Assumes landscaping would be entirely composed of drought-tolerant plants and trees.
[4] Assumes trucks would be partially filled on site only once per week, at other times would be filled from hydrants off-site. This is consistent with activities at the other County of Santa Barbara Fire Department stations.
[5] Assumes hose training between January and June each year, consistent with training at other County of Santa Barbara Fire Department stations. Annual water usage for hose training estimated for the Montecito Fire Protection District (MFPD) Station 3 Project (MFPD 2016).
[6] Estimate; includes washing of equipment and other incidental use.

As discussed above and summarized in Table 4.10-15, the GWD currently has a surplus of 150 AFY of water supplies available during normal years. The Project's estimated water demand would represent only 0.8 percent of GWD's projected surplus water supply. Therefore, the GWD would have adequate supply available to serve the Project and would not be required to construct additional infrastructure to meet the demands of the Project and GWD's existing water service commitments. Under multiple dry year (drought) conditions, the GWD anticipates a 657 AFY deficit in water supply, of which Project water demand would represent a highly negligible 0.1 percent. Implementation of Project water conservation design features, as described in Section 2.0, *Project Description,* compliance with the GWD's Water Conservation Plan would further reduce Project water demands from those estimated in Table 4.10-14, resulting in further negligible increases in demand.

The GWD has provided a Preliminary Water Service Determination for the Proposed project (John McInnes GWD, 2017) and has determined that water service may be installed for the Proposed Project subject to the requirements of the SAFE Water Supplies Ordinance, District Code, and water availability. While

the Project would represent a de minimis increase in water demand, until an Intent to Serve letter is issued by the GWD, provision of an adequate water supply for a new fire station is not guaranteed. However, Intent to Serve letters are not usually issued until a development proposed has been approved and the developer has applied for and paid tap fees. The GWD would complete their Project review before issuance of their Can and Will Serve letter. This standard review would ensure that adequate water is available to service the Project.

Given the GWD has supplies and infrastructure available to accommodate anticipated Project water demands, along with requirement for compliance with GWD standard procedures for determination of adequate water supplies and issuance of Final Can and Will Serve letters, impacts to water services and infrastructure would be *adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on utilities and service systems would be *adverse, but less than significant* (Class III)

Impact UT-2: ***Generation of Wastewater. The Project would result in the generation of an estimated 391 gallons per day (gpd) of wastewater which would be collected and conveyed through Goleta West Sanitary District (GWSD) sewer infrastructure to the Goleta Sanitary District (GSD) wastewater treatment plant. Adequate capacity is available to serve the Project's anticipated wastewater demands without the need for additional new conveyance or treatment infrastructure.***

Although neither the GWSD or the City have an adopted wastewater generation factor specific to institutional uses such as a fire station. Potential staffing levels at the proposed fire station is presently anticipated to be three firefighters on duty at all times for 24-hour shifts, which would be comparable to average household size within the City (2.72 persons per household; City of Goleta 2014). Based on sewage generation flow rates from the GSD's *Standard Specifications for Design & Construction of Sanitary Sewers* (2008), the average sewer generation flow rate for a single-family residence is 0.0005 cubic feet per second (cfs)/acre, which for the 1.21-acre Project site would equate to 391 gpd.[4] Compared to the GWSD's remaining unused treatment capacity of 1.41 MGD, the Project would comprise a negligible 0.003 percent increase in demand for wastewater treatment. The GSD treatment plant could readily accommodate such increases in flows without exceeding existing treatment capacities or wastewater treatment requirements. All storm water would be managed on-site and would not require construction of new storm drain infrastructure. Development review and Project approval processes by the City, GWSD, and GSD would ensure development of the Project and

[4] 1 cfs = 646,190 gpd

associated wastewater and storm drainage infrastructure would occur in compliance with existing regulations and general procedures.

Given the GWSD has infrastructure and unused treatment capacity available to accommodate anticipated Project wastewater demands, impacts to wastewater services, storm drainage facilities, and associated infrastructure would be *adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on utilities and service systems would be *adverse, but less than significant* (Class III).

Impact UT-3: ***Generation of Solid Waste. The Project would result in the generation of an estimated 2.85 tons of waste per year which would be collected and disposed of at the Tajiguas Landfill. The facility has capacity available to serve the Project's solid waste demands without resulting in failure to comply with existing regulations or requiring construction of new facilities.***

The City does not have adopted solid waste generation factors for institutional uses such as a fire station. However, solid waste generated by the fire station, which would consist of three firefighters on duty at all times for 24-hour shifts, would be comparable to that expected for a single family household within the City (2.72 persons per household; City of Goleta 2014). Based on the City's *Environmental Thresholds and Guidelines Manual* (2002), residential per capita solid waste generation is estimated at 0.95 tons per year. Assuming three on duty firefighters at all times, solid waste generation for the fire station is estimated at 2.85 tons per year. When compared to the existing processing and disposal capacity of the SCRTS and Tajiguas Landfill, Project solid waste generation would equate to only 0.5 percent and 0.2 percent, respectively.

According to the City's *Environmental Thresholds and Guidelines Manual*, any project that generates 196 tons per year or more of solid waste, after receiving a 50 percent source reduction and recycling credit, is considered to pose a significant impact on the landfill's capacity and ability of the County to handle its long-term solid waste stream. Due to the fact that the estimated solid waste generation for the proposed Project is less than three (3) tons per year, project specific impacts from new solid waste generation are considered *adverse, but less than significant* (Class III).

Mitigation Measures and Residual Impact

As impacts would be less than significant, no mitigation measures are required. The residual impact on utilities and service systems would be *adverse, but less than significant* (Class III).

Cumulative Impacts

Region of Influence

The Region of Influence for evaluating cumulative impacts on utilities and service systems include the service areas of water, wastewater, and solid waste service provides with past, present, and reasonably probable projects which would have the potential to contribute towards the demand for water supplies, wastewater treatment, and solid waste disposal, or result in alterations to existing collection, conveyance, or treatment infrastructure. Therefore, all related projects that would generate new demand for water supplies, increases in wastewater flows, or increases in solid waste streams within the City and utility service areas would be within the Region of Influence.

Impact Assessment

Water Supply. Cumulative development in and around the City would add 826 residential units and more than 245,000 square feet of new commercial and industrial space (see Table 3-1 in Section 3.0, *Related Projects*). Table 4.10-16 provides a summary of basic net new water demands from cumulatively considered development based on average water demand rates for residential and non-residential development from the City's *Environmental Thresholds and Guidelines Manual.* As shown, total cumulative water demand within the City are estimated at 540.3 AFY.

Table 4.10-16. Estimated Cumulative Water Demand

Land Use	Size	Demand Rate	Potable Water Demand (AFY)
Residential	826 units	0.6 AFY/unit[1]	495.6
Commercial/Industrial	245,000 sf	0.3 AFY/1,000 sf[2]	73.5
Proposed Project	Refer to Table 4.10-12		1.17
Cumulative Total			**540.3**

[1] An average of single-family residential and multi-family residential water demand rate is applied to all residential projects.
[2] The general commercial water demand rate is conservatively applied to all non-residential development.

The total estimated cumulative water demand within the City and GWD's service area would be approximately 39.1 percent of the current water demands and would exceed GWD's available water surplus and further contribute towards projected 2035 deficits in supply. Given that total cumulative water demand is estimated to exceed existing and projected supplies, pending development within the City would have a cumulatively significant effect on water supply. However, given the Project comprises only 0.2 percent of the estimated cumulative demand and includes a number of water conservation design strategies that would exceed existing water conservation requirements, the Project is not considered to have a considerable contribution towards this cumulatively significant impact.

Wastewater. As discussed above, cumulative development in and around the City would add 826 residential units across a total of 70.02 acres and more than 245,000 square feet of new commercial and industrial space (see Table 3-1 in Section 3.0, *Related Projects*). Table 4.10-17 provides a summary of basic net new wastewater flows from cumulatively considered development based on average wastewater generation rates for residential and non-residential development from the GSD's *Standard Specifications for Design & Construction of Sanitary Sewers.* As shown, the Project, along with other pending development within the City would result in an estimated cumulative net increase of 284,953 gpd of wastewater flows, which could be accommodated by existing unused GWSD and GSD wastewater treatment capacity without the need for construction of new infrastructure or exceedance of permitted wastewater treatment and discharge requirements. Therefore, the Project, along with other pending development would not result in a cumulatively significant impact to wastewater services or infrastructure.

Table 4.10-17. Estimated Cumulative Wastewater Generation

Land Use	Size	Demand Rate	Wastewater Generation (gpd)
Residential	826 units/70.02 acres	0.0043 cfs/acre[1]	194,597
Commercial/Industrial	245,000 sf/60.52 acres	0.0023 cfs/acre[2]	89,965
Proposed Project	11,600 sf/1.21 acres	0.0005 cfs/acre	391
Cumulative Total			**284,953**

[1] Wastewater generation rates for residential use chosen based on closest average wastewater generation flow rate for 826 units constructed on a net total of 70.02 acres of land (closest density is 12.3 units/acre).
[2] Wastewater generation rates for non-residential development based on average wastewater generation flow rates for "General Commercial" uses.

Solid Waste. As discussed under Impact UT-2 above, the proposed Project's estimated solid waste generation is 2.85 tons per year. Based on the City's threshold for cumulative impacts to solid waste front the *Environmental Thresholds and Guidelines Manual,* a project is not considered to contribute towards a cumulatively significant solid waste impact if its increase in solid waste would equate to less than 40 tons per year. Therefore, the proposed Project is not considered to result in or contribute to a cumulatively significant impact to solid waste.

5.0 ALTERNATIVES

This section addresses alternatives to the proposed Project required to be discussed an EIR as defined in CEQA Guidelines Section 15126.6, Consideration and Discussion of Alternatives to the Proposed Project.

5.1 Introduction

EIRs are required to examine alternatives to a proposed project in order to explore a reasonable range of alternatives that meet most of the basic objectives of the proposed project, while reducing the severity of significant project environmental impacts. CEQA Guidelines Section 15126.6(b) notes that "the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." If there is an "environmentally superior" alternative to the proposed project, it must be identified. Analysis of the "No Project" alternative, assuming the reasonable future use of the project parcel if the application were not approved, is also required. If the environmentally superior alternative is the No Project Alternative, the EIR must identify an additional "environmentally superior" choice among the other project alternatives.

The analysis of project alternatives in this EIR focuses on a reasonable range of alternatives consistent with CEQA Guidelines Section 15126.6(a). Accordingly, Section 15126.6(a) states:

> *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

CEQA Guidelines Section 15126(f) provides additional definition of the "rule of reason."

> *(f) Rule of reason. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.*

(1) Feasibility. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

(2) Alternative locations.

(A) Key question. The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.

(B) None feasible. If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given location.

(C) Limited new analysis required. Where a previous document has sufficiently analyzed a range of reasonable alternative locations and environmental impacts for projects with the same basic purpose, the lead agency should review the previous document. The EIR may rely on the previous document to help it assess the feasibility of potential project alternatives to the extent the circumstances remain substantially the same as they relate to the alternative. (Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 573).

(3) An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

5.2 Range of Alternatives Considered

5.2.1 Basic Project Objectives

The first step in determining a reasonable range of alternatives to be analyzed is to consider the basic project objectives as previously defined in Section 2.3. These are summarized below:

1. Add a new three-person fire station crew on duty around the clock;
2. Meet the NFPA five-minute fire service response time throughout western Goleta;

3. Reduce the western Goleta area fire fighter-to-population ratio to an acceptable level of less than 1:4,000;
4. Substantially improve emergency response times for fires, accidents, and emergency medical response calls in the western portions of the City and surrounding unincorporated areas; and
5. Substantially enhance and improve water rescue capabilities for the Fire Department for the western Goleta area with the ability to launch certain types of water rescue watercraft at nearby Haskell's Beach, rather than relying on the existing sole launch point at the Goleta Pier.

Objective No. 1 dictates the minimum size required of the proposed Fire Station and its location.

- The proposed facility must be sufficiently large enough to provide for the three-person fire station crew.

Objective Nos. 2 through 5 dictates the locational requirements of proposed Fire Station and its location.

- The proposed facility must be located strategically to provide needed improvements to the NFPA five-minute fire service response time throughout western Goleta. This location is illustrated on Figure 2-2, City of Goleta Fire Station 5-Minute Response Zones.

5.2.2 Minimize Potentially Significant Environmental Impacts

The second step in identifying a feasible range of project alternatives is to define all potentially significant impacts associated with the proposed Project. Only potentially significant impacts can be used to identify feasible project alternatives. These are listed below:

- **Aesthetics/Visual Resources:** Removal of eucalyptus tree vegetation and short-term change in project site character until proposed screening landscaping is established (Impact AES-1), and impacts associated with structural compatibility (AES-4) and new lighting (AES-5).
- **Biological Resources:** Removal of eucalyptus tree clusters could potentially result in lost on raptor nests (Impact BIO-3).
- **Cultural Resources:** Though no intact, significant archaeological resources are identified on the basis of an intensive ground surface survey and two subsurface excavation investigations, there is the potential for unknown cultural remains to be encountered during construction (Impact CR-1).
- **Geological Resources:** The north-facing Project slope exceeds 20% grade and is susceptible to failure and severe erosion (Impact GEO-1).
- **Land Use:** The project would require a General Plan/Coastal Land Use Plan Amendment to allow for the fire station institutional use (Impact LU-1).

- **Noise:** Construction of the Project would result in the generation of short-term noise levels potentially adversely impacting adjacent sensitive receptors (Impact LU-1).
- **Transportation:** Short-term construction traffic and associated parking on nearby private streets (Impact TRANS-5) would result in potentially *significant but feasibly mitigated impacts* (Class II), similar to the proposed Project.

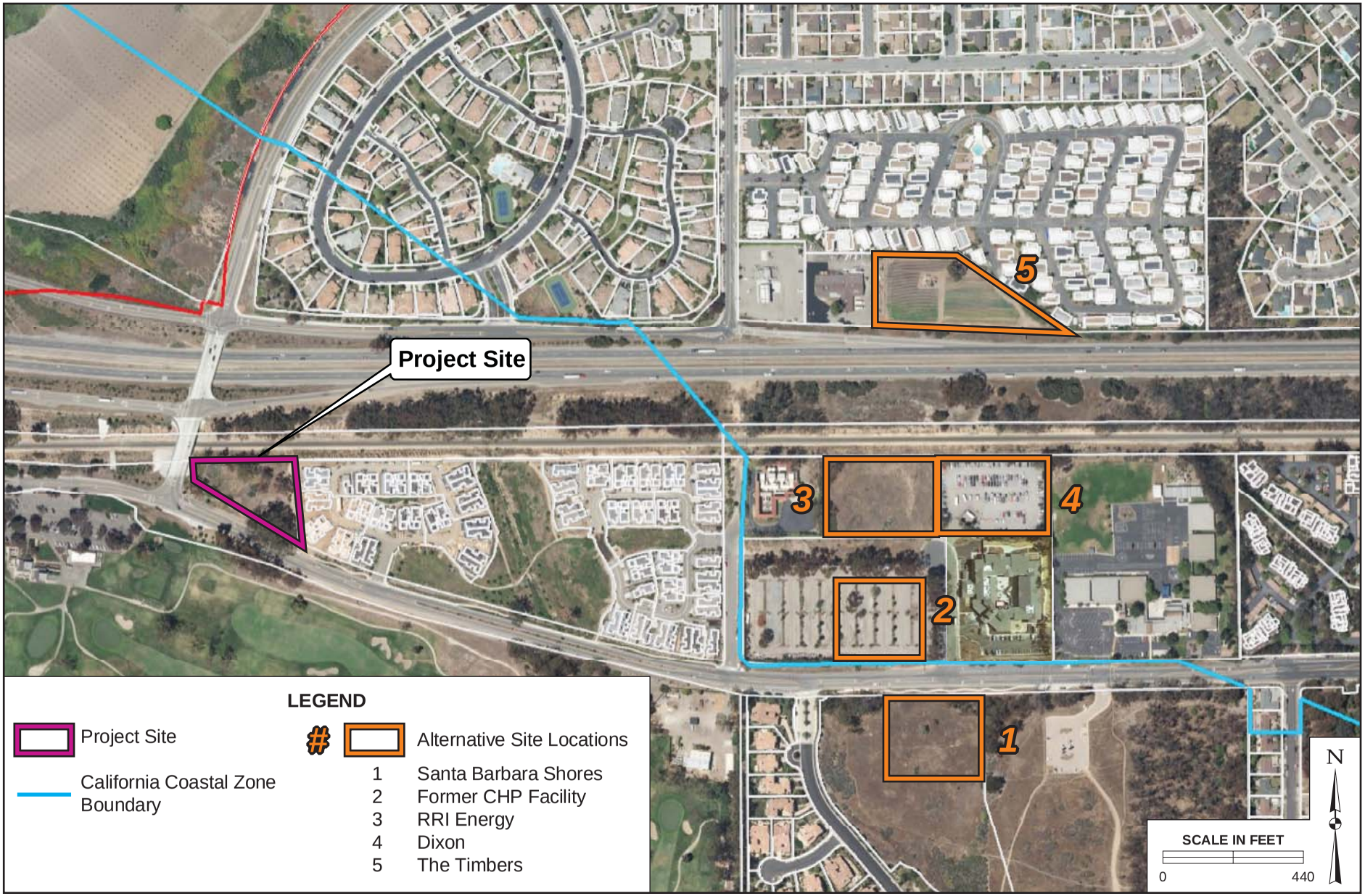
The potentially significant environmental impacts associated with the proposed Fire Station 10 project are exclusively associated with the project location, rather than size, bulk, or appearance. For example, there is no potential impact resulting from the size or intensity of the station's use that would result in impacts on air quality, greenhouse gas emissions, operational noise, or transportation/circulation. Project alternatives that otherwise would focus on a smaller fire station facility or reconfiguring the structure on-site would not address a potentially significant impact. A reduced and/or reconfigured project alternative therefore is not considered in this analysis.

Instead, the emphasis on identifying feasible project alternatives to minimize potentially significant impacts is addressed by identifying other locations. A feasible location for project alternative consideration would potentially achieve the following:

- Be within the NFPA five-minute fire serve response time throughout western Goleta;
- Avoid substantially changing the aesthetic/visual character of the site;
- Avoid removal of potential raptor roosting habitat;
- In location without any potential for encountering unknown archaeological resources;
- Outside of slopes exceeding 20 percent requiring stabilization;
- Outside of the Coastal Zone;
- Over 1,600 feet from noise sensitive receptors to reduce short-term construction impacts; and
- Avoid short-term construction traffic and associated parking on nearby private streets.

An analysis of available project sites of sufficient size (in this case, at least 1.2 acres, similar to the proposed Fire Station 10 site) and within the NFPA five-minute fire service response time throughout western Goleta result in the following alternative locations, illustrated on Figure 5-1.

1. **Santa Barbara Shores Site.** This site was originally identified as a fire station site when the Ellwood Shores Specific Plan was proposed. The site on the south side of Hollister Avenue is within the Coastal Zone and is presently undeveloped.



amec foster wheeler

Alternative Site Locations
City of Goleta Fire Station 10

FIGURE 5-1

2. **Former California Highway Patrol Relocation Site.** This site is on the north side of Hollister Avenue and outside of the Coastal Zone, and within a larger vacant, paved parking lot area.
3. **RRI Energy Site.** This site is accessed on a cul-de-sac at the terminus of Via Jero on the north side of Hollister Avenue and is outside of the Coastal Zone. It is presently undeveloped.
4. **Dixon Site.** This site is also accessed on a cul-de-sac at the terminus of Via Jero on the north side of Hollister Avenue and outside of the Coastal Zone. It is presently used as a paved parking lot area.
5. **Timbers Restaurant Site.** This site was the former Timbers Restaurant, now vacant. It is located north of US 101 and is accessed by Winchester Canyon Road, through a shared ingress/egress with the Union 76 gas station. It is outside of the Coastal Zone.

Subsequent to identification of these potential alternate site locations, further definition of geographical Project objectives was provided. Fire stations must be readily visible and accessible to the public (Captain Michael Klusyk, SBCFD, personal communication 2018). Therefore, a feasible fire station site must front a street, rather than being accessed through a shared driveway. As a result, Alternatives Nos. 3, 4, and 5 would not be feasible options for Fire Station 10, and are not analyzed further.

Preliminary analysis of Alternative No. 2, the former California Highway Patrol Relocation Site (7781 Hollister Avenue, APN 079-210-056), determined that the parcel does not have the ability to obtain a Goleta Water District (GWD) meter. The state-owned site does not have an historic account, and therefore is subject to the GWD current voter-mandated current prohibition on new connections (Ryan Drake, 2015). As a result, Alternative No. 2 would not be feasible in the foreseeable future for operation of Fire Station No. 10. It is therefore not considered further in this analysis.

5.3 No Project Alternative

As defined in CEQA Guidelines Section 15126.6(e), the No Action Alternative:

> "shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

The Project existing setting is vacant, having previously occupied by a gas station and has been abandoned and the site remediated. There presently are no physical impacts associated with the absence of land uses on site.

It is reasonable to expect that the Project site would be redeveloped with similar land uses allowed under City GP/CLUP Resort Visitor-Serving Commercial (C-V) under the designation and City Zoning Ordinance Limited Commercial (C-1)

designations. Besides the previous gas station, allowable land uses on the Project site could include:

> "Light commercial uses (i.e., barber and beauty shops, gift shops, restaurants, etc.) normally associated with the needs of visitors, provided such commercial activities are so designed and limited as to be incidental and directly oriented to the needs of visitors." (City of Goleta 1997)

The Project site has previous historical GWD and Goleta Sanitary District meter connections that would be available for a future land use. Such a use would be limited in mass and size, including setbacks. It is reasonable to expect that a future use would be conditioned to be architecturally compatible, including landscaping, with surrounding land uses.

The projected environmental impacts of such a No Action Alternative land use are assessed below:

Aesthetics/Visual Resources. Under the No Action Alternative, the proposed structure would require review of the City Design Review Board to ensure compatibility with surrounding land uses, including appropriate design, mass, color, and landscaping. It is reasonable to assume that a visitor-serving facility would be of such size, similar to the previous gas station on-site, to avoid removing the existing eucalyptus trees on-site. Preservation of the eucalyptus tree visual resource would minimize Impact AES-1 to *adverse, but less than significant* (Class III), and ***would be less than the proposed Project***. Other impacts associated with structural compatibility (AES-4) and new lighting (AES-5) would be *significant but feasibly mitigated* (Class II), ***similar to the proposed Project.***

Biological Resources. Preservation of the eucalyptus trees on-site would avoid potentially significant removal of raptor nesting habitat during construction (Impact BIO-3). Alternative project construction would result in potentially short-term disturbances to any raptors nesting in the trees, requiring feasible mitigation to avoid these impacts. Residual impacts on biological resources would be *significant, but feasibly mitigated (Class II)*, ***similar to the proposed Project***.

Cultural Resources: Project alternative construction would result in the same low potential to impact unknown prehistoric cultural resources (Impact CR-1). The project would be subject to the same mitigation measures as the proposed Project. Residual impacts on biological resources would be *significant, but feasibly mitigated (Class II)*, ***similar to the proposed Project***.

Geological Resources: A visitor-serving commercial facility similar in size to the former gas station would not likely require stabilization of the north-facing project slope (Impact GEO-1), assuming that all parking would be located on the south side of the parcel adjacent to Hollister Avenue. Therefore, the Alternative would not encroach within topographic grades susceptible to failure and severe erosion. Residual impacts on geological resources would be

adverse, but less than significant (Class III), and ***would be less than the proposed Project.***

Land Use: The No Action Alternative supporting a visitor-serving commercial land use would be consistent with existing land use and zoning ordinance designations (Impact LU-1), and would not require a General Plan/Coastal Land Use Plan Amendment. Residual impacts on land use would be *adverse, but less than significant* (Class III), and ***would be less than the proposed Project.***

Noise: Construction of the No Action Alternative would result in the generation of short-term noise levels potentially adversely impacting adjacent residential sensitive receptors at The Hideaway residential development to the east and Sandpiper Golf Course to the south (Impact NOI-1). Although no stabilization of the north-facing slope would likely be required, short-term noise levels affecting sensitive receptors to the east would be *significant, and unavoidable (Class I)*, but ***less than the proposed Project***. Intermittent noise from long-term operations of a visitor-serving commercial land use (Impact NOI-2) would be *adverse, but less than significant* (Class III), ***similar to the proposed Project***.

Public Services: The No Action Alternative would not provide for Fire Station 10, thereby not increasing the fire protection services from the Santa Barbara County Fire Protection District serving the western Goleta area and not improving service ratios and response times (Impact PS-1). The ***beneficial Project impact would not occur.***

Transportation: Implementation of the No Action Alternative would likely also require modifying the existing pedestrian, bicycle, and public transit configuration within the Project area and/or on the Hollister Avenue Project boundary (Impact TRANS-3), resulting in a beneficial impact (Class IV) ***similar to the proposed Project***. Short-term construction traffic and associated parking on nearby private streets (Impact TRANS-5) would result in potentially *significant but feasibly mitigated impacts* (Class II), ***similar to the proposed Project.***

Less Than Significant Impacts: The visitor-serving Alternative project would generate more vehicular traffic impacts than the proposed Project. Depending on the Alternative land use and size, impacts on transportation from additional peak hour trips (PHT) (Impact TRANS-1) could be potentially *significant but feasibly mitigated* (Class II). For example, a convenience store or small restaurant would likely generate hundreds of Average Daily Trips (ADT) and potentially tens of PHT, substantially more than the 29 ADT and 9 Peak Hour Trips (PHT) associated with the proposed Project. Associated long-term air quality (Impact AQ-2) and greenhouse gas (GHG) (Impact GHG-1) emissions would also be potentially substantially greater than the proposed Project, and potentially *significant but feasibly mitigated* (Class II). ***Therefore, the No Action Alternative would have greater long-term transportation, air quality, and GHG impacts than the proposed Project.***

5.4 Alternative Location

Santa Barbara Shores. As previously discussed, this site was originally identified as a fire station site when the Ellwood Shores Specific Plan was proposed. It has remained in open space and is within the 137-acre Sperling Preserve. The Alternative site is approximately 300-feet east of a 62-residential unit gated development, and 300-feet west of a public parking lot adjacent to hiking and biking trails connecting to the Sperling Preserve trail network. The site is adjacent to stands of eucalyptus trees that extend southward from Hollister Avenue.

The projected environmental impacts of such as land use are assessed below:

Aesthetics/Visual Resources. Public views from Hollister Avenue extend across the Alternative Project site southward for over 600 feet, at which point the residential structures are experienced in the background. The eucalyptus trees frame this view. The open space views and adjacent eucalyptus trees are considered important visual resources.

Construction of the 32-foot high fire station in this location would impact public views of the Sperling Preserve open space as experienced from Hollister Avenue and would likely require removal of some adjacent eucalyptus trees. Recreational trail users would also experience the institutional use instead of open space. These changes in the visual character of the northwestern portion of the Sperling Preserve would be a *significant impact* (Impact AES-1) on aesthetics/visual resources. The permanent impact as perceived by trail users could be mitigated by screening vegetation, but the change from open space to institutional uses as experienced from Hollister Avenue would be *significant and unavoidable* (Class I), and ***greater than the proposed Project.*** Other impacts associated with structural compatibility (AES-4) and new lighting (AES-5) would be *significant but feasibly mitigated* (Class II), ***similar to the proposed Project***.

Biological Resources. Preservation of eucalyptus trees on both sides of the Alternative site adjacent to Hollister Avenue would be possible with redesign of the project, but some thinning would be reasonable to expect. This disturbance and potential removal of raptor nesting habitat and disturbances during construction (Impact BIO-3) would be potentially significant. Alternative project construction would result in potentially short-term disturbances to any raptors nesting in the trees, requiring feasible mitigation to avoid these impacts. Residual impacts on biological resources would be *significant, but feasibly mitigated (Class II)*, ***similar to the proposed Project***.

Cultural Resources: The Alternative site area has been intensively surveyed during planning of the Ellwood Mesa Preserve. No prehistoric or historic archaeological sites are recorded within this area. Therefore, the potential for encountering unknown archaeological resources during construction (Impact CR-1) is *adverse and less than significant* (Class III), and ***would be less than the proposed Project***.

Geological Resources: Construction of the Fire Station on this relatively level coastal terrace would not encroach within topographic grades susceptible to failure

and severe erosion (Impact GEO-1). Residual impacts on geological resources would be *adverse, but less than significant* (Class III), and ***would be less than the proposed Project.***

Land Use: The Alternative Location site is within the Coastal zone, such that it would require a General Plan/Coastal Land Use Plan Amendment (Impact LU-1). Additional land use considerations would result from conversion of existing coastal recreational uses of the open space, and the proximity of the Alternative site to the existing Sperling Preserve trail system. Residual impacts on land use would be potentially *significant, but feasibly mitigated* (Class II), and ***would be greater than the proposed Project.***

Noise: Construction of the Alternative Location site would result in the generation of short-term noise levels potentially adversely impacting adjacent residential sensitive residential receptors to the north and west, and recreationists on trails to the east and south (Impact NOI-1). Although no retaining wall with pilings would be required, short-term noise levels affecting sensitive receptors would be *significant and unavoidable (Class I)*, but ***less than the proposed Project***. Intermittent noise from long-term operations (Impact NOI-2) would be *adverse, but less than significant* (Class III), ***similar to the proposed Project***.

Public Services: This Alternative would also provide for Fire Station 10, and increase the fire protection services from the Santa Barbara County Fire Protection District serving the western Goleta area and would improve service ratios and response times (Impact PS-1). This would be ***similar to the proposed Project.***

Transportation: Construction of the fire station on the Alternative Location site would not likely require modifying the existing pedestrian, bicycle, and public transit configuration within the Project area and/or on the northern Hollister Avenue Project boundary (Impact TRANS-3), such that ***the beneficial Project impact would not occur.*** Short-term construction traffic and associated parking on nearby private streets (Impact TRANS-5) would result in potentially *significant but feasibly mitigated impacts* (Class II), ***similar to the proposed Project.***

Less Than Significant Impacts: The Alternative Location project would generate the same number of vehicular traffic impacts than the proposed Project (Impact TRANS-1) and associated long-term air quality (Impact AQ-2) and greenhouse gas (GHG) (Impact GHG-1) emissions. Impacts would be ***similar to the proposed Project.***

5.5 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(d) requires that an EIR:

> "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison."

CEQA Guidelines Section 15126.6(e)(2) requires that:

> "If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

A summary of the proposed Project's potentially significant impacts and comparison with the two Alternatives discussed above is provided in Table 5-1.

Table 5-1. Proposed Project and Alternatives Impact Comparison

Impact	Proposed Project	No Action Alternative	Alternative Location
Aesthetics/Visual Resources			
AES-1. Change to Visual Resources	Class I (Short-Term)	Class III **(-)**	Class I (Long-Term) **(+)**
AES-4. Structural Compatibility	Class II	Class II **(=)**	Class II **(=)**
AES-5. Introduction of new light and glare	Class II	Class II **(=)**	Class II **(=)**
Biological Resources			
BIO-3. Disturbance to raptor nesting habitat during construction	Class II	Class II **(-)**	Class II **(=)**
Cultural Resources			
CR-1. Disturbance to unknown prehistoric cultural resources	Class II	Class II **(=)**	Class III **(-)**
Geological Resources			
GEO-1. Encroachment within topographic grades susceptible to failure and severe erosion	Class II	Class III **(-)**	Class III **(-)**
Land Use			
LU-1. Inconsistent with existing General Plan/Coastal Land Use Plan designation	Class II	Class II **(=)**	Class II **(+)**
Noise			
NOI-1. Short-term construction noise impacting adjacent residential sensitive receptors	Class I	Class I **(-)**	Class I **(-)**

(-) Less impact (less adverse) than the proposed Project (except for Class IV impacts that would be less beneficial)
(+) Greater (more adverse) impact than the proposed Project
(=) Equal to the proposed Project

Table 5-1. Proposed Project and Alternatives Impact Comparison (Continued)

Impact	Proposed Project	No Action Alternative	Alternative Location
Public Services			
PS-1. Increase the fire protection services from the Santa Barbara County Fire Protection District serving the western Goleta area and improve service ratios and response times	Class IV	Class IV **(-)**	Class IV **(=)**
Transportation			
TRANS-1. Generation of new traffic that would impact existing operations	Class III	Class II **(+)**	Class III **(=)**
TRANS-3. Modification of existing pedestrian, bicycle, and public transit configuration within the Project area and/or on the Hollister Avenue Project boundary	Class IV	Class IV **(=)**	Class IV **(-)**
TRANS-4. Generation of negligible net new traffic and no conflict with applicable congestion management plans or programs	Class III	Class II **(+)**	Class III **(=)**
TRANS-5: Short-term construction traffic and associated parking generated along roads within the Project area	Class II	Class II **(=)**	Class II **(=)**

(-) Less impact (less adverse) than the proposed Project (except for Class IV impacts that would be less beneficial)
(+) Greater (more adverse) impact than the proposed Project
(=) Equal to the proposed Project

Table 5-1. Proposed Project and Alternatives Impact Comparison (Continued)

Impact	Proposed Project	No Action Alternative	Alternative Location
Air Quality			
AQ-2. Long-term operational air pollutant emissions from area sources, energy use, and vehicular trips to and from the site	Class III	Class II **(+)**	Class III **(=)**
Greenhouse Gas Emissions			
GHG-1: Generation of long-term operational GHG emissions	Class III	Class II **(+)**	Class III **(=)**

(-) Less impact (less adverse) than the proposed Project (except for Class IV impacts that would be less beneficial)
(+) Greater (more adverse) impact than the proposed Project
(=) Equal to the proposed Project

Review of Table 5-1 indicates that the following:

No Action Alternative:

- The No Action Alternative would reduce several potentially significant impacts: short-term, significant and unavoidable impacts on aesthetics/visual resources (AES-1); BIO-3; GEO-1; and NOI-1.
- The No Action Alternative would likely increase impacts on transportation (TR-1) and air quality/GHG emissions (AQ-2; GHG-1).
- The No Action would appear to have the least number of potentially significant impacts compared to the proposed Project and the Alternative Site.
- The No Action Alternative would not provide any of the basic proposed Project objectives and beneficial Project impacts including providing a fire station in western Goleta (PS-1).

Alternative Site Location:

- The Alternative site location would reduce three potentially significant impacts associated with the proposed Project: CR-1; GEO-1; and NOI-1.
- The Alternative site location would increase the intensity of two potentially significant impacts associated with the proposed Project: AES-1 and LU-1. Importantly, the alternative would exacerbate the long-term *significant and unavoidable impact* (AES-1), relative to the proposed Project.
- The Alternative site location would not provide one beneficial impact associated with the proposed Project: TRANS-3.

Conclusion:

The above analysis indicates that the **proposed Project would be the environmentally superior alternative** to the only other feasible alternative location that is capable of achieving most of the basic project objectives.

This page intentionally blank

6.0 OTHER CEQA CONSIDERATIONS

This section addresses required issues to be considered in an EIR as defined in CEQA Guidelines Section 15126, Consideration and Discussion of Environmental Impacts.

6.1 Growth Inducing Impacts

CEQA Guidelines § 15126.2(d) requires a discussion of a proposed Project's potential to induce growth by, for example, fostering economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The proposed Project's growth-inducing potential is therefore considered significant if growth induced by the project could result in indirect significant physical effects in one or more environmental issue areas.

6.1.1 Population and Economic Growth

The proposed Project is not expected to induce substantial population growth in the City because it does not involve development of residential units or facilitate substantial employment growth. The proposed Project includes development of a public institution (Fire Station 10), rather than residential or commercial development. The proposed Project would involve employment of approximately 3 firefighters on-site at all times, however these employees would most likely come from the existing workforce and the proposed Project would not be expected to substantially contribute to employment growth in the City. Therefore, the Project would not be expected to increase the City's population directly (related to provision of housing), and would not be expected to induce any additional population growth indirectly related to employment growth within the City. Development of Fire Station 10 would not contribute to the local economy, and therefore, the Project would not result in substantial economic growth. The Project would not directly contribute to economic growth by providing additional space for business. As such, the proposed Project would not be expected to induce population growth or economic expansion to the extent that significant environmental impacts directly associated with the Project would occur.

6.1.2 Removal of Obstacles to Growth

The proposed Project would establish Fire Station 10 on an undeveloped property in the City. The Project site is located near existing urban development and would rely upon existing roadways (primarily Hollister Avenue and Cathedral Oaks Overpass) for site access. No new or widened /expanded roads would be required. Additionally, the proposed Project would utilize existing water, wastewater, and solid waste facilities that serve the urban areas of Goleta (see Section 4.10, *Less Than Significant Issues*). Service would be provided through minor extensions of

existing utility infrastructure. No additional infrastructure or facilities beyond those necessary to accommodate the proposed Project would be required. No other undeveloped land in the vicinity of the Project would benefit in terms of growth from the extension/provision.

The proposed Project would result in the implementation of City of Goleta General Plan/Coastal Land Use Plan Policy Public Facilities PF 3.2, which mandates the construction of a new fire station to serve the western portion of the City. Fire Station 10 would address an existing deficiency of emergency and fire protection service in the western City of Goleta area that has long been acknowledged and identified in planning documents. The County of Santa Barbara's Goleta Community Plan (adopted in August 1993) identified a conceptual fire station site at or in proximity to the Project site. Additionally, the City's General Plan/Coastal Land Use Plan Public Facilities Element (adopted in November 2006) identified the proposed Project site as the appropriate location for fire protection service expansion in relation to future buildout of the City. As such, development of the proposed Project would address future growth forecasted in the City's General Plan/Coastal Land Use Plan and would not induce growth beyond the "urban limit line" because the proposed Project has already been approved in existing planning documents. Therefore, the proposed Project would not remove obstacles to growth because it would address the existing need for fire protection and emergency services for current residences in western Goleta and anticipated future buildout of the City.

6.2 Significant, Irreversible Changes

CEQA Guidelines § 15126.2(c) requires that an EIR identify those significant impacts that cannot be reduced to a less than significant level with the application of mitigation measures. The implications and reasons why the project is being proposed, notwithstanding, must be described. As discussed in Section 4.0, *Environmental Impact Analysis*, the proposed Project would result in significant and unavoidable impacts related to short-term obstruction of scenic views (Impact AES-1 in Section 4.1, *Aesthetics*).

CEQA Guidelines § 15126.2(c) requires a discussion of any significant irreversible environmental changes which would be caused by the project should it be implemented. Such significant irreversible environmental changes may include the following:

- *Use of non-renewable resources during the initial and continued phases of the project which would be irreversible because a large commitment of such resources makes removal or non-use unlikely.*
- *Primary impacts, and particularly secondary impacts (such as highway improvement which provides access to a previously inaccessible area) which generally commit future generations to similar uses.*
- *Irreversible damage which may result from environmental accidents associated with the project.*

Construction of the proposed Project would require building materials and energy, some of which are non-renewable resources. Consumption of these resources would occur with any development in the region and are not unique to the proposed Project. The addition of a fire station would irreversibly increase local demand for non-renewable energy resources such as petroleum and natural gas. Additional vehicle trips associated with the proposed Project would incrementally increase local traffic and regional air pollutant and greenhouse gases. As discussed in Section 4.9, *Transportation/Circulation*, and Section 4.10, *Less Than Significant Issues*, impacts resulting from traffic generated by future development would be less than significant or could be mitigated to a less than significant level.

Growth accommodated under the proposed Project would require an irreversible commitment of water supply, wastewater treatment, and solid waste disposal services. However, these impacts would be less than significant or would be reduced to less than significant level with mitigation.

6.3 Energy Effects

The CEQA Guidelines Appendix F requires that EIRs include a discussion of the potential energy consumption and/or conservation impacts of the project, with particular emphasis on avoiding or reducing inefficient, wasteful, or unnecessary consumption of energy.

As discussed previously, the proposed Project would involve the use of energy during construction and operational phases of the project. Energy use during the construction phase would be in the form of fuel consumption (e.g.: gasoline and diesel fuel) to operate heavy equipment, light-duty vehicles, machinery, and generators for lighting. Additionally, temporary grid power may also be provided to any temporary construction trailers or electric construction equipment. Long-term operation of the proposed Project would require permanent grid connections for electricity and natural gas service to power internal and exterior building lighting, as well as heating and cooling systems. Additionally, the increase in vehicle trips associated with the proposed Project would increase fuel consumption within the City.

The proposed Project would be subject to the energy conservation requirements of the Title 24 of the California Code of Regulations, known as the California Building Standards Code or Tile 24, and Chapter 15.13 of the Goleta Municipal Code, “Energy Efficiency Standards,” which require energy savings measures that exceed the Title 24 standards by 15%. Adherence to the City’s Energy Efficiency Standards and other energy conservation requirements would ensure that energy is not used in an inefficient or wasteful manner.

This page intentionally blank

7.0 PREPARERS OF THE EIR

This document was prepared under the direction and approval of the City of Goleta. A team of private consultants, led by Amec Foster Wheeler, Environmental and Infrastructure, prepared the document for the City, and the City by its approval accepts the document as its own.

LEAD AGENCY

City of Goleta
130 Cremona Drive, Suite B
Goleta, California 93117

Neighborhood Services and Public Safety Department

Vytautas "Vyto" Adomaitis, Director and Project Manager
Laura Bridley, Project Planning Consultant

Planning and Environmental Services

Lisa Prasse, Planning Manager, Current Planning Division
Mary Chang, Senior Planner

EIR PREPARATION

Amec Foster Wheeler Environmental and Infrastructure, Inc.
104 West Anapamu Street, Suite 204A
Santa Barbara, CA 93101

David Stone, M.A., RPA, EIR Manager, Cultural Resources

Taylor Lane, B.A., Air Quality, GHG, Noise, Land Use, Public Services, Less than Significant Resources, Deputy Project Manager

Marie Laule, B.A., Aesthetics-Visual Resources, Deputy Project Manager

Other Contributors

Melissa Blundell, M.S., Biological Resources (*Dudek*)

Perry Russell, PG, CEG, Geology and Soils, Hazards and Hazardous Materials (*Dudek*)

Amber Geraghty, JD, Land Use Review (*Dudek*)

Scott Schell, AICP, Transportation/Circulation (*Associated Transportation Engineers, ATE*)

This page intentionally blank

8.0 PERSONS/AGENCIES CONSULTED AND REFERENCES

8.1 Persons and Agencies Consulted

Fidler, Glenn. Captain, Planning and Engineering Supervisor, Santa Barbara County Fire Department. March 2017.

Jenkins, Jackie. Communications Coordinator, Montecito Fire Protection District. August 2017.

Jespersen, Todd. Project Architect, Kruger Bensen Ziemer Architects, Inc. August 2017.

Johnson, Martin. Division Chief, Communications and EMS Division, Santa Barbara County Fire Department, Planning Division. August 2017.

King, Everett. Environmental Services Coordinator, City of Goleta. August 2017.

Klusyk, Michael. Captain, Santa Barbara County Fire Department, Support Services. September 2017.

Oaks, Steve. Fire Marshall, Santa Barbara County Fire Department. August 2017.

Orfila, Andrew. Senior Transportation Planner, Santa Barbara County Association of Governments. January 2018.

Pepin, Ron. Captain, Santa Barbara Fire Protection District. May 2013.

8.2 References

ATE. 2017. *Traffic and Circulation Study for the Goleta Fire Station 10 Project - City of Goleta*.

Branch, M. C., & Beland, R. D. 1970. *Outdoor Noise and Metropolitan Environment*. Department of City Planning, City of Los Angeles.

Bureau of Transportation Statistics. 2017. *National Transportation Statistics*. Bureau of Transportation Statistics - National Transportation Statistics. Accessed: 26 February 2018. Retrieved from: https://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/index.html#chapter_4

California Air Resources Board. 2016. *Ambient Air Quality Standards*. California Air Resources Board. Accessed: 2 January 2018. Retrieved from: https://www.arb.ca.gov/research/aaqs/aaqs2.pdf

California Department of Conservation. 2009. *Tsunami Inundation Map for Emergency Planning - State of California, County of Santa Barbara, Dos Pueblos*

Canyon Quadrangle. California Department of Conservation. Accessed: 7 February 2018. Retrieved from: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SantaBarbara/Documents/Tsunami_Inundation_DosPueblosCanyon_Quad_SantaBarbara.pdf

California Department of Toxic Substances Control (DTSC). *EnviroStor Hazardous Waste and Substances Site List.* Accessed: 13 September 2017. Retrieved from: http://www.envirostor.dtsc.ca.gov/public/search.asp?PAGE=4&CMD=search&ocieerp=False&business_name=&main_street_number=&main_street_name=&city=&zip=&county=&branch=&status=ACT%2CBKLG%2CCOM&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&cleanup_type=&npl=&funding=&reporttype=CORTESE&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST&federal_superfund=&state_response=&voluntary_cleanup=&school_cleanup=&operating=&post_closure=&non_operating=&corrective_action=&tiered_permit=&evaluation=&spec_prog=&national_priority_list=&senate=&congress=&assembly=&critical_pol=&business_type=&case_type=&display_results=&pub=&hwmp=False&permitted=&pc_permitted=&inspections=&complaints=&censustract=&cesdecile=&ORDERBY=city&next=Next+50.

California Deparment of Transportation (Caltrans). 2009. Highway Traffic Noise Abatement. Project Development Procedures Manual, Chapter 30. June 18. http://www.dot.ca.gov/design/manuals/pdpm/chapter/chapt30.pdf

California Water Boards State Water Resources Control Board. Accessed: 16 February 2018. Retrieved from: https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/executive_orders.html

CalRecycle. 2018. *Solid Waste Facility Listing/Details Page - Tajiguas Sanitary Landfill. California Department of Resources Recycling and Recovery (CalRecycle)*. Accessed: 16 February 2018. Retrieved from: http://www.calrecycle.ca.gov/SWFacilities/Directory/42-AA-0015/

Caltrans. 2010. *Highway Design Manual*. Accessed: January 2018.

Caltrans. 2017. *California Traffic Census Program. California Department of Transportation*. Accessed: 4 January 2018. Retrieved from: http://www.dot.ca.gov/trafficops/census/

CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. California Air Resources Board. Accessed: 3 January 2018. Retrieved from: https://www.arb.ca.gov/ch/handbook.pdf

CARB. 2010. *Programs: 'Hot Spots' Stationary Diesel Engine Screening Risk Assessment Tables*. California Air Resources Board. Accessed: 3 January 2018.

Retrieved from: https://www.arb.ca.gov/ab2588/diesel/diesel.htm#info

CCRWQCB. 2016. *Water Quality Control Plan for the Central Coast Basin*. California Water Boards. Accessed: 7 February 2018. Retrieved from: https://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/current_version/2016_basin_plan_r3_complete.pdf

CEC. 2016a. *Utility Annual Power Content Labels for 2015.* California Energy Commission - Utility Annual Power Content Labels for 2015. Accessed: 8 August 2017. Retrieved from: http://www.energy.ca.gov/pcl/labels/

CEC. 2016b. *California Energy Commission - Tracking Progress Renewable Energy - Overview.* California Energy Commission. Accessed: 6 June 2017. Retrieved from: http://www.energy.ca.gov/renewables/tracking_progress/documents/renewable.pdf

CEC. 2017. *California Gasoline Data, Facts, and Statistics*. California Energy Commission. Accessed: 6 June 2017. Retrieved from: http://www.boe.ca.gov/sptaxprog/reports/MVF_10_Year_Report.pdf

CEC. 2018. California Energy Consumption Database. California Energy Commission. Accessed: 23 February 2018. Retrieved from: http://ecdms.energy.ca.gov/

City of Goleta. 1997. *Coastal Zoning Ordinance*: *Chapter 35, Article I*. Accessed: December 2017. Retrieved from: http://www.cityofgoleta.org/home/showdocument?id=129

City of Goleta. 2002. *Environmental Thresholds and Guidelines Manual*. City of Goleta - City CEQA Guidelines and Thresholds. Accessed: 19 February 2018. Retrieved from: http://www.cityofgoleta.org/city-hall/planning-and-environmental-review/ceqa-review/city-ceqa-guidelines-and-thresholds

City of Goleta. 2006. *City of Goleta General Plan/Coastal Land Use Plan - Chapter 4.0 Conservation Element (CE). City of Goleta*. Accessed: January 2018. Retrieved from: http://www.cityofgoleta.org/home/showdocument?id=4071

City of Goleta. 2006. *City of Goleta General Plan/Coastal Land Use Plan - Chapter 6.0 Visual and Historic Resources Element (VH). City of Goleta*. Accessed: 2 February 2018. Retrieved from: http://www.cityofgoleta.org/home/showdocument?id=580

City of Goleta. 2006. *City of Goleta General Plan/Coastal Land Use Plan - Chapter 7.0 Transportation Element (TE). City of Goleta*. Accessed: 4 January 2017. Retrieved from: http://www.cityofgoleta.org/home/showdocument?id=579

City of Goleta. 2006. *City of Goleta General Plan/Coastal Land Use Plan - Chapter 8.0 Public Facilities (PF) Element. City of Goleta*. Accessed: 15 January 2018. Retrieved from: http://www.cityofgoleta.org/home/showdocument?id=578

City of Goleta. 2006. *City of Goleta General Plan/Coastal Land Use Plan - Chapter 9.0 Noise Element (NE). City of Goleta*. Accessed: 2 January 2018. Retrieved from: http://www.cityofgoleta.org/home/showdocument?id=577

City of Goleta. 2006. *Final Goleta General Plan/Coastal Land Use Plan, Environmental Impact Report*. Prepared by Jones & Stokes, September. Accessed 16 August 2017. Retrieved from: http://www.cityofgoleta.org/city-hall/planning-and-environmental-review/general-plan/view-general-plan/general-plan-coastal-land-use-plan-final-eir

City of Goleta. 2010. *Proposed Final Mitigated Negative Declaration, Fire Station #10, Conceptual Site Feasibility/Site Selection Plan; Case 09-116-MND*.

City of Goleta. 2012. *Energy Efficiency Action Plan*. Institution for Local Governments - City of Goleta. Accessed: 26 February 2018. Retrieved from: http://www.ca-ilg.org/sites/main/files/file-attachments/final_goleta_energy_efficiency_action_plan_2012.pdf

City of Goleta. 2014. *City of Goleta General Plan/Coastal Land Use Plan - Chapter 10.0 Housing Element (HE)*. City of Goleta. Accessed: 16 January 2018. Retrieved from: http://www.cityofgoleta.org/home/showdocument?id=9671

City of Goleta. 2015. *Draft 2015 City of Goleta Coastal Hazards Vulnerability Assessment and Fiscal Impact Report: November*. Accessed: 12 September 2017. Retrieved from: https://www.conservationgateway.org/ConservationPractices/Marine/crr/library/Documents/GoletaCoastalVulnerability.pdf.

City of Goleta. 2016. *General Plan/Coastal Land Use Plan, Safety Element: Coastal and Other Hazards Map*. Accessed: 16 August 2017. Retrieved from: http://www.cityofgoleta.org/i-want-to/view/general-plan.

City of Goleta. 2016*. General Plan/Coastal Land Use Plan, Safety Element. Other Hazards Map, dated November 2009*. Accessed: 12 September 2017. Retrieved from: http://cityofgoleta.org/home/showdocument?id=4289.

County of Santa Barbara. 2013. *Santa Barbara County Integrated Regional Water Management Plan*. Santa Barbara County Public Works Department. Accessed: 7 February 2018. Retrieved from: http://www.countyofsb.org/pwd/irwmplan2013.sbc

County of Santa Barbara. 2014. *Stormwater Technical Guide for Low Impact Development.* Project Clean Water, Water Resources Division. Accessed: February 2018.

County of Santa Barbara. 2016. *Cate School Master Plan Update Project Draft Final EIR (SCH #2014041008). County of Santa Barbara Planning and Development*. Accessed: 12 September 2017. Retrieved from: http://sbcountyplanning.org/projects/13RVP-00009Cate/index.cfm

County of Santa Barbara Public Works Department. 2018a. *RRWMD South Coast Recycling & Transfer Station*. County of Santa Barbara Public Works Department - South Coast Recycling and Transfer Station. Accessed: 16 February 2018. Retrieved from: http://www.countyofsb.org/pwd/southcoast.sbc

County of Santa Barbara Public Works Department. 2018b. *RRWMD Tajiguas Landfill.* County of Santa Barbara Public Works Department - Tajiguas Landfill. Accessed: 16 February 2018. Retrieved from: http://www.countyofsb.org/pwd/tajiguaslandfill.sbc

Cummins Power Generation. 2017. *Sound-attenuated and weather-protective enclosures. Cummins Power Generation*. Accessed: 3 January 2018. Retrieved from: https://power.cummins.com/sites/default/files/literature/brochures/F-1493-Enclosures-en.pdf

Drake, Ryan. 2015. *CHP Santa Barbara Area Office Replacement Project, Service Address: 7781 Hollister Avenue, Goleta, CA 93117, APN:079-210-056*. Letter to Mike Siemerling, Real Estate Division, State of California.

Dudek. 2015. *Supplemental Extended Phase 1 Archaeological Investigation Fire Station No. 10, 7952 Hollister Avenue, Goleta, CA, AP:079-021A-075.* Prepared for City of Goleta, December.

Federal Highway Administration(FHWA). 2017. Construction Noise Handbook, Section 9.0 Construction Equipment Noise Levels and Ranges. https://www.fhwa.dot.gov/ENVIRonment/noise/construction_noise/handbook/handbook09.cfm

Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment. Federal Transit Administration*. Accessed: 2 January 2018. Retrieved from: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/fta-noise-and-vibration-impact-assessment

Flowers & Associates, Inc. 2017. D*rainage Analysis for the City of Goleta Fire Station 10 Project*.

FMMP. 2018. *Santa Barbara County Important Farmland 2016.* California

Department of Conservation. Accessed: 9 February 2018. Retrieved from: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/sba16.pdf

GSD. 2008. S*tandard Specifications for Design & Construction of Sanitary Sewers*.
Goleta Sanitary District. Accessed: 21 February 2018. Retrieved from: http://www.goletasanitary.org/images/2008SewerSpecs.pdf

GSD. 2013. *Goleta Sanitary District Sewer System Management Plan*. Goleta Sanitary District. Accessed: 21 February 2018. Retrieved from: http://www.goletasanitary.org/images/2013%20SSMP.pdf

GWD. 2017. *Goleta Water District Water Supply Management Plan 2017 Update*. Goleta Water District. Accessed: 15 February 2018. Retrieved from: http://www.goletawater.com/assets/uploads/WSMP%202015%20Update_FINAL_May%202017.pdf

GWD. 2018. *Facts and Figures | Goleta Water District*. Goleta Water District. Accessed: 15 February 2018. Retrieved from: http://www.goletawater.com/about-the-district/facts-and-figures

GWSD. 2016. *Goleta West Sanitary District Sewer Systems Management Plan*. Goleta West Sanitary District. Accessed: 15 February 2018. Retrieved from: http://goletawest.org/wp-content/uploads/2016/08/160811-Sewer-System-Management-Plan-V5.pdf

GWSD. 2018. *District Overview - Goleta West Sanitary District. Goleta West Sanitary District*. Accessed: 15 February 2018. Retrieved from: http://goletawest.org/about-us/district-overview/

Harris Miller Miller & Hanson Inc. 2006. *Transit Noise and Vibration Impact Assessment, Final Report*. Accessed: 3 January 2018. Retrieved from: http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf

Holguin, Fahan & Associates, Inc. 2012. *Site Closure Summary Report, Chevron Former Service Station #9-4268 (Future City of Goleta Fire Station #10), 7952 Hollister Avenue, Goleta, California (FPD File #502421).* Prepared for Chevron Environmental Management Company, June 13.

Kaijankoski, P., Hildebrandt, W.R., and Joslin, T.L. 2013. *Archaeological Excavations at the Millingstone Period Site CA-SBA-70, Santa Barbara County, California*. Edited by Patricia Mikkelsen. Prepared for Caltrans District 5.

Leighton Consulting, Inc. 2017. *Geotechnical Exploration, Proposed City of Goleta Fire Station No. 10, 7952 Hollister Avenue, Goleta, California*. Prepared for City of Goleta, February 21.

Macfarlane, Heather. 2010. Phase 1 Archaeological Resource Survey, Proposed Goleta Fire Station #10 Feasibility Study, 7952 Hollister Avenue, A.P.N. 079-021A-075 (1.20 Acres), Goleta, CA.

McInnes, John. 2017. *Goleta Water District Preliminary Conditions Letter, APN: 079-210-075, Service Address: 7952 Hollister Avenue, City of Goleta Case No.: 17-044-GPA*. Letter to Michelle Greene, City of Goleta. October 27.

Montecito Fire Protection District (MFPD). 2016. *Final Environmental Impact Report for Station 3 Site Acquisition and Construction (SCH #2011031094). Montecito Fire Protection District - Station Three Studies*. Accessed: 5 January 2018. Retrieved from: https://www.montecitofire.com/station-3-studies

MTD. 2017a. *Ridership & Performance Report for the Fiscal Year July 2016 - June 2017. Santa Barbara Metropolitan Transit District*. Accessed: 4 January 2018. Retrieved from: http://www.sbmtd.gov/download/publications/2017Ridership/FY2017%20Annual%20Report.pdf

MTD. 2017b. *System Ridership Report: November 2017. Santa Barbara Metropolitan Transit District*. Accessed: 4 January 2018. Retrieved from: http://www.sbmtd.gov/download/publications/2017Ridership/November%202017%20Monthly%20Ridership%20Report.pdf

Nye, Mark. 2018. Personal communication. Vice President, D.J. Scheffer & Nye. April 23.

Muraoka, Robert. 2016. *Fire Station 10 Project Site Tree Inspection*. Accessed: 28 April.

NRCS. 2018a. *Web Soil Survey*. United States Department of Agriculture Natural Resources Conservation Service. Accessed: 9 February 2018. Retrieved from: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

NRCS. 2018b. *Land Capability Class, by State, 1997 | NRCS*. United States Department of Agriculture Natural Resources Conservation Service. Accessed: 9 February 2018. Retrieved from: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/?cid=nrcs143_014040

Orfila, Andrew. 2018. *Fire Station 10 Project Consistency Determination*. Letter to Claudia Dato, Senior Project Manager, Department of Neighborhood Services

& Public Safety. January 22. Santa Barbara County Association of Governments.

RRWMD. 2018. *Resource Recovery Project - Welcome to the Resource Recovery Project Web Site.* Resource Recovery Project Website. Accessed: 16 February 2018. Retrieved from: http://www.resourcerecoveryproject.com/

Santa Barbara County. 2015. *Santa Barbara County Comprehensive Plan, Seismic Safety & Safety Element, Adopted 1979 and Amended 2015*. Retrieved from: http://longrange.sbcountyplanning.org/programs/genplanreformat/PDFdocs/Seismic.pdf.

Santa Barbara County Airport Land Use Commission, & SBCAG. 2012. *Noise Compatibility Policy Map: Santa Barbara Municipal Airport. Santa Barbara County Association of Governments*. Accessed: 5 January 2018. Retrieved from: http://www.sbcag.org/uploads/2/4/5/4/24540302/noise_compatibility_policy_map_sba.pdf

SBCAG. 2012. *Regional Growth Forecast 2010-2040. Santa Barbara County Association of Governments.* Accessed: 7 August 2017. Retrieved from: http://www.sbcag.org/uploads/2/4/5/4/24540302/regional_growth_forecast_2010-2040.pdf

SBCAPCD. 2016. *Santa Barbara County Air Pollution Control District - Rule 802 New Source Review.* Santa Barbara County Air Pollution Control District. Accessed: Retrieved from: https://www.ourair.org/wp-content/uploads/rule802.pdf

SBCAPCD. 2017. *Meeting Air Quality Standards*. Santa Barbara County Air Pollution Control District. Accessed: 24 July 2017. Retrieved from: https://www.ourair.org/air-quality-standards/

SLOAPCD. 2012. *CEQA Air Quality Handbook: A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review*. SLO County APCD. Accessed: 5 February 2018. Retrieved from: http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20November%202017%29_LinkedwithMemo%281%29.pdf
SWRCB. 2018. Executive Orders | California State Water Quality Control Board.

Sunset. 2012. *The New Sunset Western Garden Book, Ninth Edition*. Sunset Publishing Corporation.

U.S. Department of Agriculture, Natural Resources Conservation Service (USDA NRCS 2016). *Web Soil Survey*. Accessed: 17 2017. Retrieved from: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

USEPA. 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*. Accessed: 21 April 2017. Retrieved from:

https://nepis.epa.gov/Exe/ZyNET.exe/9101NN3I.TXT?ZyActionD=ZyDocument&Client=EPA&Index=Prior+to+1976&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C70thru75%5CTxt%5C00000024%5C9101NN3I.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL

Watershed Environmental, Inc. *Evaluation of Dead and Structurally Compromised Tree Removal for Fire Station No. 10 Site*. Prepared for City of Goleta. February 9.

_____. 2016. *Biological Assessment, 7952 Hollister Avenue, Goleta, CA, APN:079-210-048.* Prepared for City of Goleta. July 25.

This page intentionally blank