Coral Avenue Subdivision Project

Final Initial Study – Mitigated Negative Declaration

prepared by

City of Morro Bay, Community Development Department
955 Shasta Avenue
Morro Bay, California 93442

prepared with the assistance of

Rincon Consultants, Inc.
1530 Monterey Street, Suite D
San Luis Obispo, California 93401

July 2018

Rincon Consultants, Inc.
Environmental Scientists Planners Engineers
www.rinconconsultants.com

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Initial Study

1. Project Title

Morro Bay Coral Avenue Subdivision

2. Lead Agency Name and Address

City of Morro Bay
955 Shasta Avenue
Morro Bay, California 93442

3. Contact Person and Phone Number

Nancy Hubbard
Contract Planner
(805)-772-6211
nhubbard@morrobayca.gov

4. Project Location

The project site is located in the City of Morro Bay in western San Luis Obispo County. The 1-acre project site is identified as APN 065-386-015, and is located at the southeast corner of Coral Avenue and San Jacinto Street, adjacent to California State Route (SR) 1. The site is generally flat with a slope of under 3% and elevation of 31 feet above mean sea level (msl). The property is in the Cloisters subdivision (Tract 1996).

Figure 1 shows the project's regional location, and Figure 2 shows the project site location.

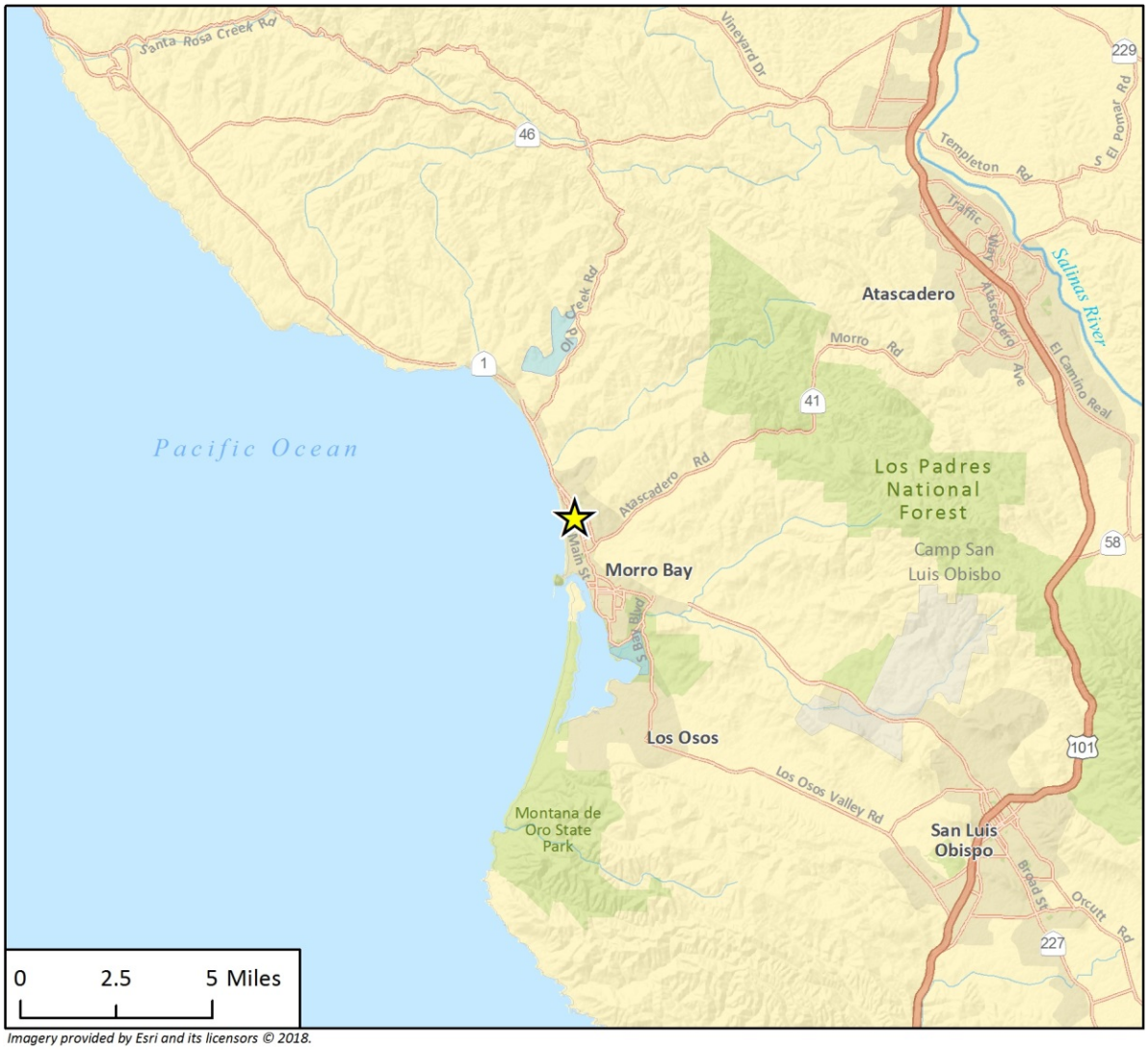
5. Project Sponsor's Name and Address

David Watson, AICP
Watson Planning Consultants
Post Office Box 385
Pismo Beach, California 93448

6. General Plan Designation

The project site is designated in the City of Morro Bay General Plan/Local Costal Plan as Moderate Density Residential (4 to 7 dwelling units per acre). The site is located in the Coastal Zone.

Figure 1 Regional Location



Imagery provided by Esri and its licensors © 2018.

Project Location

N

Fig 1 Regional Location

Figure 2 Site Location

Imagery provided by Google and its licensors © 2018.

Fig 2 Project Location

7. Zoning

The project site is zoned Coastal Resource Residential with a Golf Course Planned Development Overlay (CRR/GC/PD). CRR/GC/PD allows for residential uses that are environmentally compatible with protection of coastal resources of local and statewide significance.

8. Description of Project

The project would subdivide the project site into six single family residential lots ranging in size from approximately 6,500 square feet (sf) to 8,500 sf. The two easternmost lots have been designed to accommodate the existing on-site drainage feature that flows north to south along the eastern portion of the site and to distance the proposed residences from SR 1.

Figure 3 shows the proposed Tentative Tract Map.

Access to the lots on the project site would come from a private drive ("Verdon Court") that would be a shared easement area, maintained by the property owners. The drive includes a 20-foot wide access, with parking prohibited on the drive to facilitate fire and emergency access per City fire code standards. As part of the development, a common road agreement shall be created to maintain private road and all residences will comply with Cloister's Coastal Resource Residential zoning and the Cloisters design guidelines.

Grading requirements for the site would be minimal, and would include installation of utilities to serve the lots and access on Verdon Court. Utilities for the site would be extended from existing facilities at Coral Avenue. The project would remove approximately 17 existing eucalyptus trees, most of which are located on the southwestern portion of the site, and two which are located near SR 1 in the southeastern portion of the site. Storm and surface drainage from the proposed lots would be directed to Verdon Court, and collected in a storm drain line that would connect to the existing public storm line in Coral Avenue. Utilities for the site would be extended from existing facilities at Coral Avenue into the site to serve each lot. The project would require approval of the Vesting Tentative Map (Tract No. 2859) as well as approval of a Coastal Development Permit by the City to ensure consistency with the California Coastal Act.

9. Surrounding Land Uses and Setting

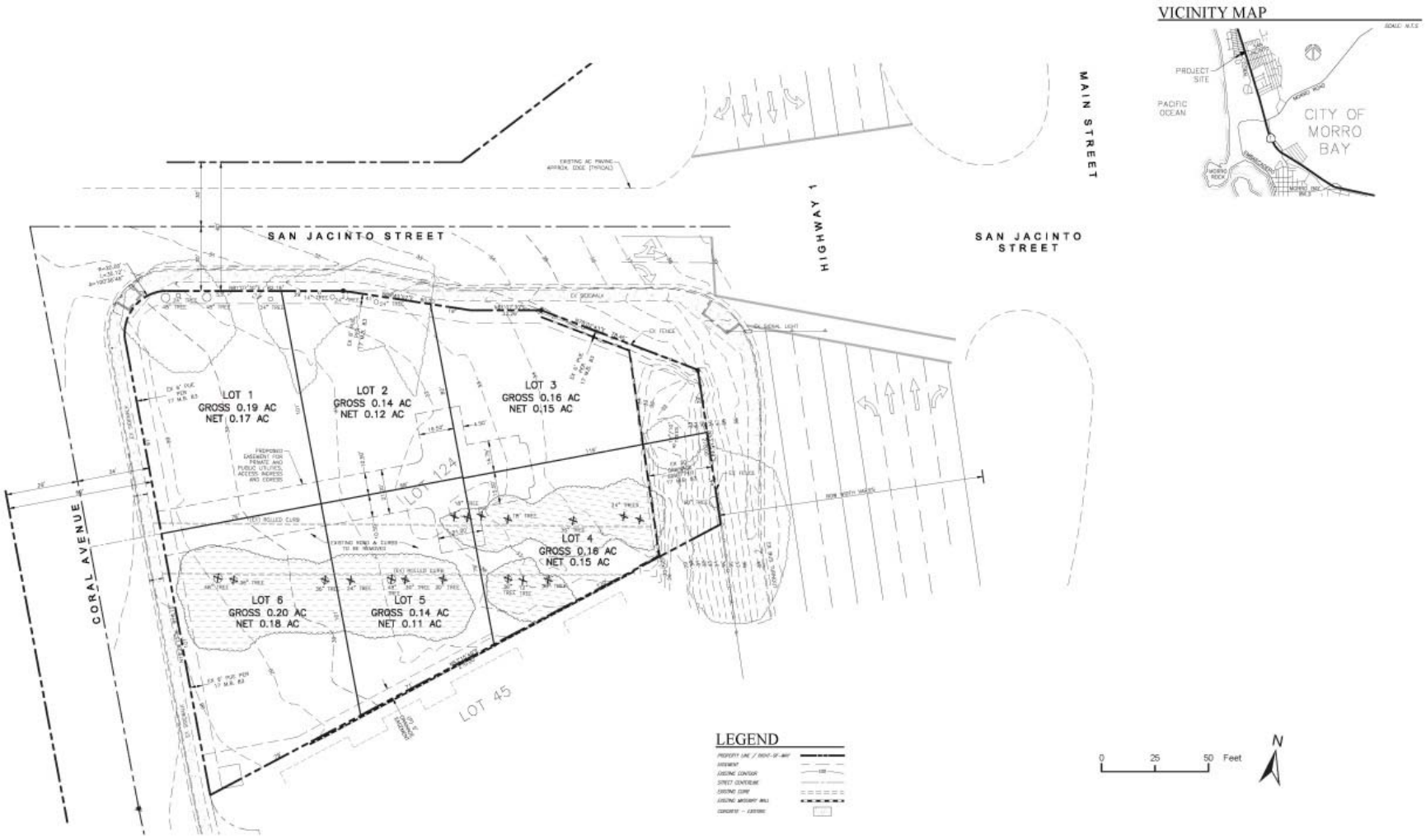
The project is located within the City of Morro Bay's Coastal Zone and located in western San Luis Obispo County. The site is surrounded by residential land uses and sits adjacent to SR 1. Significant habitat types that exist on the site are eucalyptus and ruderal non-native annual grassland. A drainage feature located on the northeast corner that runs north to south along the eastern border of the site. Additionally, public and recreational (open space) facilities are located to the west and south of the project site.

10. Other Public Agencies Whose Approval is Required

City of Morro Bay – Tentative Tract Map Approval

City of Morro Bay – Local Coastal Development Permit

Figure 3 Tentative Tract Map



Source: GTA & ASSOCIATES, INC.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

■	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
■	Biological Resources	■	Cultural Resources	☐	Geology and Soils
☐	Greenhouse Gas Emissions	☐	Hazards and Hazardous Materials	☐	Hydrology and Water Quality
☐	Land Use and Planning	☐	Mineral Resources	■	Noise
☐	Population and Housing	☐	Public Services	☐	Recreation
☐	Transportation/Traffic	☐	Tribal Cultural Resources	☐	Utilities and Service Systems
■	Mandatory Findings of Significance				

Determination

Based on this initial evaluation:

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

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

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

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

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

Signature	Date
Printed Name	Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	■	☐
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	■	☐
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	■	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	■	☐	☐

The City of Morro Bay's General Plan provides guidance on scenic vistas through the Visual Resources and Scenic Highway Element. The project site is located adjacent to SR 1, which is a designated State Scenic Highway (Caltrans 2017). The west end of San Jacinto Street is also a designated Vista Point with a "fair" view (City of Morro Bay 2017). The Cloisters subdivision is also identified as an Area of Visual Significance in the City's Local Coastal Plan (City of Morro Bay 1988). The project site is currently undeveloped and contains 17 eucalyptus trees.

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

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

According the General Plan Visual Resources and Scenic Highway Element Scenic Route map, the project site is not located within a designated Scenic View along the State Scenic Highway. There are no existing historic buildings or scenic rock outcroppings on the site that would be damaged by the project. However, the project would result in the removal of up to 17 eucalyptus trees on the project site. Figure 4 shows existing and post-project views of the project site looking west from the intersection of SR 1 and San Jacinto Street.

Figure 4 Visual Impact – State Route 1 and San Jacinto Road

Before Project After Project

Source: RRM Design Group

As shown in Figure 4, removal of existing eucalyptus trees on the project site would change the view of the site. It should be noted that there are ocean views from the southbound SR 1 travel lane that are not depicted in the post-project visual simulation shown in Figure 4, and would be partially obstructed by new development on the site. However, the post-development views would still be dominated by off-site vegetation, new on-site landscaping, and surrounding residential development, which is of similar scale and design to the proposed SFR units. The project site is at or slightly below the elevation of SR 1, and new SFR units on-site would be limited to one story in height. Therefore, the proposed development would not substantially obstruct existing views.

The City has adopted Implementation Measures for Major Vegetation Removal, Replacement and Protection Regarding Private Property Tree Removals. Because the project would remove more than three trees, replacement of vegetation would be required. The removal of trees on site would not impact any trees listed in the City's Landmark Tree Ordinance 12.08.150. Compliance with existing City requirements would ensure that the project would develop a City-approved replacement plan, and that the project would not cause any adverse impact to designated scenic vistas or views from the State Scenic Highway.

LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project site is vacant and contains 17 eucalyptus trees that would be removed as part of the project. As discussed under checklist items a.) and b.), above, the project would require a Coastal Development Permit and replacement of vegetation, and the removal of trees on site would not impact any trees listed in the City's Landmark Tree Ordinance 12.08.150. The proposed single-family residences would be constructed within an existing row of houses, and would be similar in scale and architectural appearance to surrounding development in the vicinity. The Coastal Resource Residential zone requires single story residential units in order to protect the view corridor. Architectural design would follow the design guidelines established for a SFR neighborhood under the City's LCP and Zoning standards, and would be subject to review and approval of the Design Committee as established in the Declaration of Covenants, Conditions, and Restrictions of the Cloisters subdivision. Therefore, the project would not result in a significant degradation of the visual character of the site or its surroundings.

LESS THAN SIGNIFICANT IMPACT

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

The project would include lighting, which would contribute to existing sources of light and glare in the surrounding neighborhood. However, the project would be required to comply with applicable lighting requirements, including Municipal Code Title 17, Chapter 17.52.080, which outlines site design standards for lighting, illuminated signs, and glare (City of Morro Bay, 2018). Additionally, the project would be required to comply with applicable design standards for Coastal Resources Residential zoning designation that would ensure that proposed structures would not incorporate material that would induce substantial new sources of glare. The project would not create lighting or glare inconsistent with adjacent uses, provided standard measures are incorporated. The

following mitigation measures are required to reduce potential impacts to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

Mitigation Measures

AES-1 Lighting Plan

Prior to issuance of a building permit, a comprehensive lighting plan shall be submitted for review and approval by the City. The lighting plan shall be prepared using guidance and best practices endorsed by the International Dark Sky Association. The lighting plan shall address all aspects of the lighting, including but not limited to all buildings, infrastructure, and driveways. The lighting plan shall include the following at minimum:

a) The point source of all exterior lighting shall be shielded from offsite views.
b) Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields.
c) Illumination from exterior lights shall be the lowest level allowed by public safety standards.
d) Exterior lighting shall be designed to not focus illumination onto exterior walls.
e) Bright white-colored light shall not be used for exterior lighting.

Monitoring: The City of Morro Bay would verify implementation of lighting design details through review and approval of the lighting plan and building plans prior to issuance of building permits for the project.

2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	■
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

The soil type on the project site is Concepcion Loam (2-5 percent slopes), based on the Natural Resources Conservation Service's Web Soil Survey (U.S. Department of Agriculture [USDA] 2018). The Concepcion Loam series consists of deep, moderately well drained soils that formed in weakly consolidated stratified alluvium or wind-deposited sandy material. These soils are on terraces adjacent to and within two miles of the Pacific Ocean.

a. Would the project convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

e. Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

The project site is located in the City of Morro Bay's Coastal Zone and is currently undeveloped. There is no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or agriculturally zoned land on the project site. The Concepcion Loam soil type that underlies the project site is classified as Farmland of Statewide importance if irrigated; however, the site is not irrigated. The project does not involve any development that would convert agricultural land to a non-agricultural use, conflict with existing zoning of forest land or timberland, result in the loss or conversion of forest land to non-forest uses, interrupt ongoing agricultural activity, or conflict with a Williamson Act contract. Therefore, the project would not adversely affect agricultural, forest land, or timberland resources.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	■	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	■	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☐	■

As the local Air Quality Control District, the San Luis Obispo County Air Pollution Control District (SLOAPCD) monitors air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. The primary pollutants of concern in San Luis Obispo County are ozone (O_3) and particulate matter (PM_{10}). The major local sources for PM_{10} are agricultural operations, vehicle dust, grading, and dust produced by high winds. Ozone is a secondary pollutant that is not produced directly by a source, but rather is formed by a reaction between nitrogen oxides (NO_X) and reactive organic gases (ROG) in the presence of sunlight. In San Luis Obispo County, the major sources of ROG are motor vehicles, organic solvents, the petroleum industry, and pesticides; and the major sources of NO_X are motor vehicles, public utility power generation, and fuel combustion by various industrial sources (SLOAPCD 2001).

Certain population groups are more sensitive to air pollution than others. Standards are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14, the elderly over 65, persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases. Therefore, the majority of sensitive receptor locations are residences, schools, and hospitals. The project site is located adjacent to residential units to the north, south, and west.

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

As part of the California Clean Air Act, SLOAPCD is required to develop a plan to achieve and maintain the state ozone standard by the earliest practical date. The Clean Air Plan (CAP) outlines the SLOAPCD strategies to reduce ozone precursor emissions from wide variety of stationary and mobile sources. The most recent CAP was adopted by SLOAPCD in 2001. The 2001 CAP addresses the attainment and maintenance of state and federal ambient air quality standards within the SCCAB. A project's consistency with the 2001 CAP is based on whether the growth that the project would result in is accounted for in the growth assumptions of the CAP. The project is consistent with the land use designation and zoning for the project site, and the level of growth associated with the project is anticipated in the City's long term forecast and would not exceed the official regional population projections. Therefore, the project would not conflict with the growth assumptions in the CAP.

LESS THAN SIGNIFICANT IMPACT

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

An evaluation of both short-term and long term air pollutant emissions is provided below. Models were generated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. Where project-specific information was not available, model default assumptions for projects within SLOAPCD were used.

Construction Emissions

Construction of the project would result in temporary increases in air pollutant emissions associated with site grading, building construction, and paving activities. Table 1 and Table 2 shows the estimates of maximum daily and quarterly construction emissions associated with the proposed development, and compares the emissions with the applicable SLOAPCD significance thresholds.

Table 1 Quarterly Construction Emissions

Pollutant	Maximum Emissions (tons/quarter)[1]	Significance Threshold (tons/quarter)	Significant Impact?
Ozone Precursors (ROG + NO_X)	1.0	2.5	No
Fugitive Particulate Matter (PM_{10})	0.1	2.5	No
DPM	0.11	0.13	No

1. Quarterly emissions were calculated by dividing maximum annual construction emissions by 4, since construction activities would extend for a duration exceeding 90 days, as recommended by SLOAPCD.

See Appendix A for CalEEMod software program output.

Table 2 Maximum Daily Construction Emissions

Pollutant	Maximum Daily Emissions (pounds/day)	Significance Threshold (pounds/day)	Significant Impact?
Ozone Precursors (ROG + NO_X)	57.0	137	No
Diesel Particulate Matter (DPM)[1]	1.3	7	No

1. The DPM estimations were derived from the "PM_{10} Exhaust" output from CalEEMod as recommended by SLOAPCD. This estimation represents a worst case scenario because it includes other PM_{10} exhaust other than DPM.

See Appendix A for CalEEMod worksheets.

As shown in Table 1 and Table 2, the project would not generate emissions in excess of SLOAPCD thresholds during construction activities. Because the County of San Luis Obispo portion of the South Central Coast Air Basin does not meet the state standard for PM_{10}, SLOAPCD requires any project with grading areas greater than 4.0 acres or that are within 1,000 feet of any sensitive receptor to implement standard fugitive dust mitigation measures. Implementation of standard SLOAPCD dust and emission control requirements during project construction ensures that PM_{10} emissions generated by construction activities would be further reduced.

Operational Emissions

Operational emissions are contributed by on-site and off-site stationary and area sources and by mobile sources. Area source emissions include releases from combustion to heat buildings, architectural coatings, landscaping equipment exhaust, aerosol products, and similar activities at the project site. Table 3 and Table 4 summarize the daily and annual operational emissions that would result from the project, and compares the emissions with the applicable SLOAPCD significance thresholds.

Table 3 Daily Operational Emissions

Pollutant	Total Emissions (pounds/day)	Significance Threshold (pounds/day)	Significant Impact?
Ozone Precursors (ROG + NO_X)	1.0	25	No
CO	2.0	550	No
Fugitive Particulate Matter (PM_{10})	0.3	25	No
Diesel Particulate Matter (DPM)	0.01	1.25	No

Daily and annual emission thresholds are based on SLOAPCD CEQA Guidelines

CalEEMod – summer operational emission data to compare to operational thresholds, see Appendix A for CalEEMod worksheets.

Table 4 Annual Operational Emissions

Pollutant	Total Emissions (tons/year)	Significance Threshold (tons/year)	Significant Impact?
Ozone Precursors (ROG + NO_X)	0.2	25	No
Fugitive Particulate Matter (PM_{10})	0.1	25	No

Daily and annual emission thresholds are based on SLOAPCD CEQA Guidelines

1. CalEEMod – summer operational emission data to compare to operational thresholds, see Appendix A for CalEEMod worksheets.

As shown in Table 3 and Table 4, the operation of the project would not generate emissions that would exceed adopted SLOAPCD emissions thresholds.

LESS THAN SIGNIFICANT IMPACT

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Land uses such as schools, daycare centers, hospitals, or senior centers are sensitive to poor air quality conditions because infants, the elderly, and people with respiratory ailments are more susceptible to air quality-related health problems than the general public. Residential areas are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. In the vicinity of the project site, sensitive receptors include residential areas located adjacent to the north, south, and west of the project site, as well as the project itself. The majority of project emissions would be from mobile sources that would contribute to regional emissions, but would not substantially contribute to localized elevated criteria pollutant levels. The project does not include any stationary sources of emissions on the project site. As shown in Table 1 and Table 2, the project would not generate air pollutant emissions in exceedance of SLOAPCD thresholds during construction activities or project operation. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations.

LESS THAN SIGNIFICANT IMPACT

e. Would the project create objectionable odors affecting a substantial number of people?

The project does not involve development of any uses with potential to cause significant odor impacts. As such, the project would not result in objectionable odors affecting a substantial number of people.

NO IMPACT

4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	■	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	■	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	■	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	■	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	■	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

A Biological Resources Addendum for Tract No.2859 (BRA) based on the Draft and Final Environmental Impact Report for the Cloisters Residential Subdivision Project (EIR) was prepared by Sage Institute in 2017 (refer to Appendix B). There are numerous protected habitats and species that exist in Morro Bay. The BRA identifies wetlands, active dune and scrub habitats, monarch butterfly winter roosts, and species recorded in the California Natural Diversity Database (CNDD) as the primary biological resources associated with the Cloisters development.

The project site is undeveloped and supports ruderal non-native grassland cover with two rows of blue gum eucalyptus trees. A drainage feature emanating from three culverts in the northeast corner draining the urbanized north Morro Bay area runs from north to south along the eastern border of the site and connects to a pond feature in the Cloisters subdivision. At the time of the survey of the site for the BRA, the ditch was dry and the BRA states that there is no apparent natural creek flow to the site and no other drainage pattern through the site. There is no existing or proposed Environmentally Sensitive Habitat Area (ESHA) on the project site (Sage 2017).

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

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

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Special status species include those specifies that are listed as rare, threatened, or endangered by the California Department of Fish and Wildlife or the United States Fish and Wildlife Service. Wetlands are defined by Section 404 of the United States Clean Water Act (CWA) as areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (USEPA 2018). Wetlands are critical habitat for the California red-legged frog (CRLF), a federally and state listed threatened species that has been identified in Morro Bay. According to a previous environmental impact report (EIR) for development of the Cloisters subdivision in 1991, the site did not contain any wetland habitat, and after a 2017 field survey, it was affirmed no wetland habitat are contained on site and therefore there is no expectation the CRLF would occur on the project site (Sage 2017).

Eucalyptus rows on the project site provide potential roosting habitat for monarch butterflies. A 2007 monarch butterfly winter roost survey described in the BRA found that the on-site trees were not being actively used as roosting habitat by butterflies, and that they do not provide suitable habitat based on key criteria. A search of the California Natural Diversity Database (CNDDB) performed for the BRA did not identify monarch butterfly roost sites on the project site (Sage 2017).

The project site does not contain any known special status species identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service, special-status habitat, federally designated wetland areas, or riparian areas.

LESS THAN SIGNIFICANT IMPACT

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The project site is surrounded by existing residential development and is not located within any wildlife movement corridors or native wildlife nursery sites. However, the project may indirectly impact nesting birds protected under the Migratory Bird Treaty Act and their habitat within existing trees on or adjacent to the project site. Project construction would require the removal of up to 17 existing eucalyptus trees on the project site. As described in the BRA (refer to Appendix B), no large stick nests for raptors or other birds were observed in any of the eucalyptus trees and the trees do not have an open structure conducive to secretive bird nesting, though the potential for bird nesting still remains (Sage 2017). The City prohibits tree removal during the nesting bird season – February 1st to June 30th – except in cases of emergencies (City of Morro Bay 2006). However, because the project would require the removal of existing trees, mitigation is required to ensure that impacts to migratory birds would be reduced to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The City of Morro Bay has adopted Implementation Measures for Major Vegetation Removal, Replacement and Protection Regarding Private Property Tree Removals. The guidelines establish when replacement of vegetation is required, and define vegetation types. Because the project would remove more than three trees, replacement of vegetation would be required. A Certified Arborist Report was prepared for the site in 2007 (see Appendix C), which describes the existing trees on-site and the applicable City tree replacement requirements. The Arborist Report concludes that the site is not an active overnight roosting location for monarch butterflies, and that removal of the existing blue gum eucalyptus trees on the site would not impact sensitive species (Schreiber 2007). The following mitigation measures from the Arborist Report are required to reduce potential impacts to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The project site is not located in an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approval local, regional, state habitat conservation plan.

NO IMPACT

Mitigation Measures

BIO-1 Nesting Bird Mitigation

Vegetation removal and initial site disturbance for any project elements shall be conducted between July 1 and January 31, outside of the nesting season for birds. If vegetation removal would occur during the bird nesting season (February 1 to June 30th), preconstruction nesting bird surveys shall be required to determine if any active nests are present on the project site. If no active nests are found, then no further mitigation shall be required. If any active nests are found that would be

impacted by construction, then the nest sites shall be avoided with the establishment of a non-disturbance buffer zone around active nests as determined by a qualified biologist. Nest sites shall be avoided and protected with the non-disturbance buffer zone until the adults and young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist.

Monitoring: Construction and grading plans shall clearly note the above mitigation measure on applicable sheets, and be clearly visible to contractors and City inspectors. Community Development Department staff shall inspect the site for compliance with the above requirement.

BIO-2 Tree Replacement

Eucalyptus trees removed shall be replaced at a ratio of two five-gallon trees, or one 15-gallon tree, for every tree removed. The replacement trees may be planted on the project site, or on other privately-held lands within the property owners' permission, or presented to the City to plant on public lands. Replacement trees as appropriate for the site shall be incorporated into a landscape plan for the project, and if planted prior to construction of residences, shall be protected during construction to ensure their viability.

Monitoring: The City of Morro Bay would approve landscape plans prior to issuance of building permits for the project and verify implementation of the landscape plan prior to occupancy.

5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	■
b. Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	■	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	■	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	■

The California Environmental Quality Act (CEQA) requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1) and tribal cultural resources (PRC Section 21074 [a][1][A]-[B]). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources, or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Rincon Consultants reviewed a records search conducted by the Central Coast Information Center at University of California Santa Barbara. There are over 30 surveyed archaeological sites in the incorporated boundary of Morro Bay, three of which are located within one half mile of the project site.

California Assembly Bill 52 of 2014 (AB 52) and California State Senate Bill 18 of 2004 (SB 18) require Native American consultation for the project to address potential impacts to tribal cultural resources as a result of the project.

Section 15064.5 of the CEQA Guidelines assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. The disposition of human remains is governed by Health and Safety Section 7050.5 and PRC Sections 5097.94 and 5097.98, and falls within the jurisdiction of the Native American Heritage Commission (NAHC). In the event that human remains are discovered, the County Coroner must be notified within 48 hours and there can be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to PRC Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native Americans so they can inspect the burial site and make recommendations for treatment or disposal.

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Rincon Consultants reviewed the National Register of Historic Places and California Register of Historical Resources databases of significant historical and archeological resources. There are no recognized historic buildings, objects, sites, or districts on the project site (National Park Service 2018, City of Morro Bay 2016).

NO IMPACT

b. Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Two surveys have been performed for archaeological resources on the project site, in 2017 and 2007. The 2007 surface archaeologic survey by Cultural Resource Management Services found no evidence of significant historic or prehistoric archeological resources within the project area. In 2017 City staff performed a records search of the Central Coast Information Center at the University of California Santa Barbara identified no archaeological resources on site or within a 300 foot radius (Central Coast Information Center, 2018). The nature of the 2007 surface survey and the follow up records search in 2017 does not preclude the possible existence of such remains or archaeological resources, especially in region that is demonstrated to be archeologically sensitive. The City of Morro Bay's General Plan outlines policies and programs related to archeological resources. Development on the project site would be required to comply with General Plan Program LU – 82.4, which outlines mitigation measures in the case archaeological resources are discovered during construction of new development (City of Morro Bay 1988). Mitigation Measure CUL-1 describes construction monitoring that would ensure potential impacts to undiscovered cultural resources would remain less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Unanticipated discovery of human remains during project excavation would require compliance with Health and Safety Code Section 7050.5 and PRC Sections 5097.94 and 5097.98. Compliance with Health and Safety Code Section 7050.5 and PRC Sections 5097.94 and 5097.98 would ensure that unanticipated discovery of human remains during project excavation would be addressed appropriately by the County Coroner and NAHC (if required), and would not constitute a significant impact.

NO IMPACT

Mitigation Measures

CUL-1 Construction Monitoring

A qualified archaeologist with experience in Northern Chumash ~~Tribal Cultural materials~~ and Playano Salinan material culture and paleontologist shall monitor all groundbreaking and earthmoving activities within the project site that remain within previously undisturbed native soils. In the event that archaeological and historic artifacts are encountered during project construction, all work in the vicinity of the find will be halted until such time as the find is evaluated by a qualified archaeologist and appropriate mitigation (e.g., curation, preservation in place, etc.), if necessary, is implemented. If further testing is required as a result of encounter with archaeological or historic artifacts, a ~~Northern Chumash monitor~~ locally affiliated Native American monitor (e.g., Salinan or Chumash) shall be retained for monitoring.

In the event that buried or otherwise unknown cultural resources are discovered during construction, work shall be suspended and the City of Morro Bay shall be contacted immediately. Appropriate mitigation measures shall be developed by qualified archeologist or paleontologist if necessary. In the event that human remains are discovered during construction, if the coroner determines the remains are Native American, the NAHC shall be contacted and the remains shall be left in situ and protected until a decision is made on their final disposition.

Monitoring: Construction and grading plans shall clearly note the above mitigation measure on applicable sheets, and be clearly visible to contractors and City inspectors. Community Development Department staff shall inspect the site for compliance with the above requirement.

6 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	☐	■	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c. Be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	■	☐
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	■	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■

The City of Morro Bay is located in a seismically active area. Nearby faults that are seismically active and could potentially affect the City include the Los Osos fault, the Hosgri fault, the Oceanic-West Huasna fault, the Rinconada fault, East Huasna fault, the La Panza fault, and the San Andreas fault

(City of Morro Bay, 2017). The project site is general flat, and is located in an area with low risk of landslide and moderate liquefaction potential (City of Morro Bay, 2017). The site is located in a San Luis Obispo Air Pollution Control District Naturally Occurring Asbestos (NOA) buffer zone, which indicates that the site may contain serpentine soils (SLOAPCD, 2018).

a.1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

a.2. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

The project consists of minor grading and land alteration for development of residential units. Under the Alquist-Priolo Special Studies Zone Act, the State is required to delineate study zones that encompass all potentially or recently-active fault traces deemed sufficiently active to constitute a potential hazard to structures from surface faulting or fault creep. The project site is located within a moderate zone for seismic hazard and ground shaking (California Department of Conservation 2003). To minimize potential seismic impacts, California Building Code includes minimum standards for structural design, necessary tests and inspections, provisions addressing building foundations, and standards for the use of certain materials (City of Morro Bay, 2006). The City's 2006 Local Hazard Mitigation Plan outlines mitigation strategies intended to minimize risk to people, existing and future critical facilities due to earthquakes (City of Morro Bay 2006). Compliance with local policies and state regulations regarding building standards, hazard mitigation and seismic safety would minimize risk and exposure to adverse effects of seismic ground shaking.

LESS THAN SIGNIFICANT IMPACT

a.3. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

a.4. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

b. Would the project result in substantial soil erosion or the loss of topsoil?

c. Would the project be located on a geologic unit or soil that is made unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

d. Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Construction on the project site would be required to comply with all applicable City code requirements, including the Building Code, which requires proper documentation of soil characteristics for designing structures that are built to resist shaking or to remain standing in an earthquake. The Building Division of the City's Community Development Department reviews project plans for compliance with applicable soils engineering requirements.

Landslide prone areas in the City of Morro Bay are generally located east of SR 1 and north of SR 41. The project site is general flat, and is located in an area with low risk of landslide (City of Morro Bay, 2017). Compliance with NPDES permit requirements regarding stormwater would limit project runoff levels to pre-project levels and minimize potential soil erosion and loss of top soil.

LESS THAN SIGNIFICANT IMPACT

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed development would be connected to the City's existing sewer system for wastewater disposal. Therefore, the project would not result in impacts associated with soils that are incapable of supporting septic tanks and alternative wastewater disposal systems.

NO IMPACT

7 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b. Conflict with any applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases?	☐	☐	■	☐

Project implementation would generate greenhouse gas (GHG) emissions through the burning of fossil fuels or other emissions of GHGs, thus potentially contributing to cumulative impacts related to climate change. In response to an increase in man-made GHG concentrations over the past 150 years, California has implemented AB 32, the "California Global Warming Solutions Act of 2006." AB 32 codifies the Statewide goal of reducing emissions to 1990 levels by 2020 (essentially a 15% reduction below 2005 emission levels) and the adoption of regulations to require reporting and verification of statewide GHG emissions. Furthermore, on September 8, 2016, the governor signed Senate Bill 32 (SB 32) into law, which requires the State to further reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 extends AB 32, directing the California Air Resources Board (ARB) to ensure that GHGs are reduced to 40 percent below the 1990 level by 2030.

On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) CO_2e by 2030 and two MT CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the State.

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]).

In January 2014, Morro Bay adopted a Climate Action Plan (CAP), which provides qualitative thresholds consistent with AB 32 Scoping Plan measures and goals. As identified in SLOAPCD's *CEQA Air Quality Handbook*, if a project is consistent with an adopted Qualified GHG Reduction Strategy,

such as a CAP, that addresses the project's GHG emissions, it can be presumed that the potential climate change impact of the project's GHG emissions would be less than significant. This approach is consistent with State CEQA Guidelines Section 15064(h) and 15183.5(b). The City's CAP was developed to be consistent with State CEQA Guidelines Section 15183.5 and SLOAPCD's *CEQA Air Quality Handbook* to mitigate emissions and climate change impacts, and serves as a Qualified GHG Reduction Strategy for the City of Morro Bay.

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

b. Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

In the short term, the project would result in minor increases in GHG emissions during project construction. Such an increase would not individually contribute to climate change. However, it would contribute to the global cumulative impact from GHG emissions. Standard City construction regulations would apply to the project, including requirements that:

- A minimum of six percent of construction vehicles and equipment be electrically-powered or use alternative fuels such as compressed natural gas, and
- The contractor will limit idling of construction equipment to three minutes and will post signs to that effect.

Long-term impacts would be primarily associated with vehicle trips to and from the project site. However, the project is consistent with the General Plan land use designation for the site and policy provisions of the City's General Plan, and would result in infill development, located in close proximity to transit, City services, and employment centers. City policies recognize that compact, infill development allows for more efficient use of existing infrastructure and city-wide efforts to reduce GHG emissions. The Morro Bay CAP also recognizes that energy-efficient design will result in significant energy savings, which result in GHG emissions reductions.

Appendix C of the Morro Bay CAP contains a CAP Compliance Worksheet, which includes mandatory and voluntary emissions reduction measures used by the City to demonstrate project-level compliance with the CAP. The project would be required through Conditions of Approval to comply with all mandatory measures from Appendix C of the CAP, including provision of bicycle parking, pedestrian linkages and interconnectivity, traffic calming, and landscaping.

LESS THAN SIGNIFICANT IMPACT

8 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	■
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	■	☐

The City's Local Hazard Mitigation Plan states that the potential for hazardous materials emergencies in Morro Bay is low (City of Morro Bay 2006). The project site is currently vacated and there are no known historical uses on the site that would result in hazardous material contamination, such as previous development, agricultural use, or industrial storage. Additionally, there are no known sources of hazardous materials, such as industrial uses, manufacturing, or fuel stations, located in the project site proximity.

The project site is located within a 'Local Responsibility Area' (LRA) as defined by the California Department of Forestry and Fire Protection (CalFire). Morro Bay is responsible for fire prevention and support within its city limits (City of Morro Bay, 8-15, 2017). The City has areas of elevated wildlife risk along the southeastern edge of the community, near Black Hill and Cerro Carrillo, which are designated as Very High Fire Hazard Zone or High Fire Hazard Zone (City of Morro Bay, 8-15, 2017).

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The project would not involve the transport, use, or disposal of substantial quantities of hazardous materials. Construction activities related to the project would be subject to standard requirements for the handling of hazardous materials. Proper handling, transportation, and disposal in accordance with federal, state, and local law and regulations would avoid significant exposure and hazards to people and the environment from potential hazardous materials contamination. The project site is located adjacent to SR 1, which is a major transportation corridor but is not identified as a major corridor for transportation of hazardous waste (City of Morro Bay 2006). The residential development of the project site would not increase transportation of hazardous materials, and would not result in an increase in the potential risk of upset along this corridor.

The project is located less than 0.2 miles from Del Mar Elementary School. However, the project does not involve development of any uses or operations that would result in the emission of hazardous materials.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

In order to evaluate hazardous materials records located on the project site or adjacent to the project site, the following databases were reviewed: California State Water Resources Control Board Geotracker, United States Environmental Protection Agency (USEPA) Resource and Recovery Act, Enviro Facts, USEPA Permit Compliance System, the California Department of Toxic Substances EnviroStar Database, and the USEPA CERCLS Public Access Database. Review of these databases indicates that the project site is not located in a site or within 1,000 feet of a site that is considered to contain hazardous materials pursuant to Government Code Section 65962.5.

NO IMPACT

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f. For a project near a private airstrip, would it result in a safety hazard for people residing or working in the project area?

The project site is not located within an airport land use plan area, within two miles of a public airport, or near a private airstrip. Therefore, there would be no impacts regarding airport safety hazards.

NO IMPACT

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City of Morro Bay's Multi-hazard Emergency Response Plan outlines policies and concepts for responding to earthquakes, hazardous material, multi-casualty, storm and flooding, wildland fire, terrorism, nuclear emergencies, and tsunamis. The plan was adopted in 2003 and most recently revised in 2008 (City of Morro Bay, 2008). Residential development of the project site and associated minimal population growth would not interfere with implementation of programs outlined in the Multi-hazard Emergency Response Plan.

NO IMPACT

h. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The project site is located within an existing residential, developed area. According the City of Morro Bay's Local Hazard Mitigation Plan, the probability of a wildland fire in the community is low and risk of wildland fire is not substantive (City of Morro Bay, 2006). Additionally, according to the California Department of Forestry and Fire Protection (CalFire), the project site is not located within a Very

High Fire Hazard Severity Zone (CalFire, 2009). Therefore, the risk of significant adverse effects from wildland fires would be minimal.

LESS THAN SIGNIFICANT IMPACT

9 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements?	☐	☐	■	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	■	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	■	☐
d. Substantially alter the existing drainage pattern of the site or area, including the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	■	☐
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	■	☐
f. Otherwise substantially degrade water quality?	☐	☐	■	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g. Place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?	☐	☐	■	☐
h. Place structures in a 100-year flood hazard area that would impede or redirect flood flows?	☐	☐	■	☐
i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including that occurring as a result of the failure of a levee or dam?	☐	☐	■	☐
j. Result in inundation by seiche, tsunami, or mudflow?	☐	☐	■	☐

The project site is located within an area designated as zone X by the Federal Emergency Management Agency (FEMA), which is outside of the 0.2 percent annual chance floodplain (500-year flood) FEMA, 2018). The closest creek to the site, Alva Paul creek, is located approximately 0.3 miles to the north of the project site. The topography of the project site is generally flat with 2-5 percent slopes and ability to transmit water from very low to moderately low. Water quality standards and requirements for the project are maintained by the Regional Water Quality Control Board.

a. Would the project violate any water quality standards or waste discharge requirements?

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

d. Would the project substantially alter the existing drainage pattern of the site or area, including the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

e. Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f. Would the project otherwise substantially degrade water quality?

The project site would disturb more than one acre and would add up to 24,407 square feet of impervious surface, which would increase stormwater runoff from the site (Gary Taylor & Associates

2017). The project would be required to comply with National Pollutant Discharge Elimination System (NPDES) General Permit requirements, which would limit peak post-project runoff levels to pre-project levels. The NPDES program controls water pollution by regulating point sources that discharge pollutants into waters of the United States, including construction activity. According to the City's Stormwater Management Guidance Manual, this project would require application of Performance Requirement No. 1-3, which require that Low Impact Development (LID) strategies be incorporated in the project design, and preparation of a SWCP (City of Morro Bay 2014). A Stormwater Control Plan (SWCP) was completed for the site in 2017, which outlines drainage designs, applies performance requirements, and estimates post-development runoff from the site. As described in the SWCP, on-site retention and infiltration facilities would have sufficient capacity to treat estimated stormwater runoff associated with site development (Gary Taylor & Associates 2017).

Surface drainage from the proposed lots would be directed to Verdon Court and collected in a storm drain line that would connect to the existing public storm line in Coral Avenue. The project would be consistent with Policy 9.12 of the City's Coastal Land Use Plan Chapter X, Hazards, which requires that all development incorporate Regional Water Quality Control Board Best Management Practices for water quality protection (City of Morro Bay 1988) and incorporate Stormwater Management Guidance Manual Low Impact Development and Post-Construction Requirements (City of Morro Bay, 2018).

LESS THAN SIGNIFICANT IMPACT

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

The Morro Valley and Chorro Valley Groundwater Basis are the main groundwater basins that underlie the City. The City operates seven drinking water wells, four of them active, in the Morro Groundwater Basin, and eight wells in the Chorro Groundwater Basin, with only one being active due to high nitrate levels. The use of groundwater resources from these groundwater basins is controlled by the State Water Resources Control Board (SWRCB). The project would rely on groundwater; however, the City of Morro Bay's Urban Water Management Plan (UWMP) indicates that the City is expected to have an available groundwater supply in excess of projected demands through 2035 (City of Morro Bay 2017). In addition, the project would be required to comply with NPDES requirements, which would limit peak post-project runoff levels – and associated groundwater recharge – to pre-project levels.

LESS THAN SIGNIFICANT IMPACT

g. Would the project place housing in a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map?

h. Would the project place structures in a 100-year flood hazard area that would impede or redirect flood flows?

The project site is mapped within Federal Emergency Management Agency (FEMA) Zone X, according to a recent Federal Emergency Management Agency (FEMA) May 2017 Map Change

(FEMA, 2017). Areas in Zone X are considered outside of the 0.2 percent annual chance floodplain (500-year flood). The project would not place any structures or housing within in a 100-year floodplain, and would not affect the floodplain elevation offsite.

LESS THAN SIGNIFICANT IMPACT

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including that occurring as a result of the failure of a levee or dam?

j. Would the project result in inundation by seiche, tsunami, or mudflow?

The County of San Luis Obispo has developed an inundation flood hazard map for county, including incorporated cities. Based on the County's inundation flood hazard map, the project site is not located within a dam inundation area and is not subject to flood risk from dam or levee failure according to the County of San Luis Obispo's Damn inundation flood hazard map (County of San Luis Obispo, 2018). The City's Safety Element states that there may be future construction of dams, and studies to analyze flood risk for the community as a result of dam construction will be conducted (City of Morro Bay, V 12, 1988). The project site is located within a tsunami hazard area (City of Morro Bay, 2017). The City of Morro Bay's Multi-Hazard Emergency Response Plan outlines City operations and mutual aid agreements that would take effect in the event of a disaster such as a tsunami (City of Morro Bay, 2008). In addition, the San Luis Obispo County Tsunami Response Plan, which outlines coordinated response to tsunami threats for the areas at risk in the County, includes risk assessment and evacuation guidance. The site is not located adjacent to bodies of water such as Morro Bay, which has potential risk for seiche run up (County of San Luis Obispo, 2016).

LESS THAN SIGNIFICANT IMPACT

10 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	■
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	■
c. Conflict with an applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	■

a. Would the project physically divide an established community?

The project does not contain features, such as a new road or wall, which would physically divide an established community.

NO IMPACT

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The project site is designated as Moderate Density Residential (4 to 7 dwelling units per acre) in the Morro Bay General Plan/Local Coastal Plan. The project would result in development of residential uses in an area of the City that is planned and zoned for residential development. Additionally, the project would adhere to the City's Local Coastal Plan Policy 0.6.1.a, which states that the Coastal Resources Residential areas outside of the public view corridor may be used for single family detached residences with minimum lot areas of not less than 6,000 square feet and consistent with Chapter 16 of the Municipal Code (City of Morro Bay 1988).

NO IMPACT

c. Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

The project site is not located within an area covered by an adopted habitat conservation plan or natural community conservation plan.

NO IMPACT

11 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	■
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	■

The project site does not contain any known valuable mineral resources or mineral resource recovery sites. According to the California Department of Conservation (DOC), the project site is located within a Surface Mining and Reclamation Act (SMARA) study area for concrete aggregate in the San Luis Obispo-Santa Barbara Production Consumption Region. However, there are no existing SMARA petitions on the project site or within the study area (DOC 2018).

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

There are no known mineral resources that would be of value to the region and the residents of the state within the project site, according to the California Department of Conservation. Additionally, the site does not contain known mineral resource recovery sites that have been previously delineated by the local general plan, specific plan, or other land use plan.

NO IMPACT

12 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. 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?	☐	■	☐	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	■	☐
c. A substantial permanent increase in ambient noise levels above those existing prior to implementation of the project?	☐	☐	■	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	■	☐
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■
f. For a project near a private airstrip, would it expose people residing or working in the project area to excessive noise?	☐	☐	☐	■

Noise is defined as unwanted sound. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dBA level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound

pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the ambient noise level to be judged as twice as loud. In general, a 3 dBA change in the ambient noise level is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while areas adjacent to arterial streets are typically in the 50-60+ dBA range. Normal conversational levels are usually in the 60-65 dBA range and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels from point sources, such as those from individual pieces of machinery, typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from the noise source. Noise levels from lightly traveled roads typically attenuate at a rate of about 4.5 dBA per doubling of distance. Noise levels from heavily traveled roads typically attenuate at about 3 dBA per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a solid wall or berm can reduce noise levels by 5 to 10 dBA (Federal Transit Administration [FTA] 2006). The manner in which homes in California are constructed generally provides a reduction of exterior-to-interior noise levels of approximately 20 to 25 dBA with closed windows (FTA 2006).

Some land uses are more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. Residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, museums, cultural facilities, parks, and outdoor recreation areas are more sensitive to noise than commercial and industrial land uses. Sensitive uses located within the vicinity of the project site include single family and residential units.

The City's General Plan Noise Element threshold for noise exposure is 60dB for most land uses. Additionally, the City's Zoning Ordinance contains noise limitations and specifies operations hours, review criteria, noise mitigation, and requirements for noise analysis.

a. Would the project 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?

The project site's noise levels were analyzed in an acoustics report prepared by 45dB Acoustics in 2017 (refer to Appendix D). Existing noise levels on the project site range from range from 72 dBA nearest SR 1, down to 56 dBA at the western edge of the project site. Twenty-year future (year 2037) noise levels were estimated to increase by approximately one decibel to 73 dBA nearest to SR 1 down to 57 dBA at the western edge of the project site. Traffic noise from SR 1 is the primary source of noise on the site. The proposed SFR units would be set back by approximately 50 feet from the eastern site boundary, which is the nearest portion of the site to SR 1.The City's General Plan Noise Element threshold for noise exposure is 60 dB for most land uses. For residential land uses, this threshold is intended to ensure that interior spaces would not be exposed to noise levels that would impact residents. New residential uses would be required to be designed and constructed in compliance with California Green Building Standard Code (CGBSC) for interior spaces. The manner in which homes in California are constructed generally provides a reduction of exterior-to-interior noise levels of approximately 20 to 25 dBA with closed windows (FTA 2006). Therefore, the proposed SFR units closest to SR 1 would be exposed to interior noise levels up to approximately 47 dBA, which exceeds the Title 24 interior noise level maximum of 45 dBA. Mitigation is required to ensure that noise levels at new residential uses would not be exposed to noise that would exceed applicable state and local regulations.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Site development would result in short-term increases in ambient noise levels related to the use of construction equipment, including generator sets, forklifts, graders, pavers, rollers, and tractors. Potential short-term construction noise levels are dependent on the location of the equipment on the site as well as the number and types of construction equipment used during construction. Construction activities may also result in temporary ground borne vibration. Construction and ground borne vibration is regulated by the City's Municipal Code, which regulates noise and vibration levels of equipment during construction by limiting construction activity to daytime hours. Compliance with the City's Municipal Code for construction activity would ensure that short-term noise and vibration during construction would not result in a significant noise impact at adjacent uses.

LESS THAN SIGNIFICANT IMPACT

c. Would the project result in a substantial permanent increase in ambient noise levels above levels existing without the project?

New development on the project site would result in new vehicle trips on area roadways, primarily Coral Avenue, San Jacinto Street, and SR 1, that may increase noise along area roadways. For new vehicle trips to result in a perceptible (approximately 3 dBA) traffic noise increase, a project would typically have to double of vehicle traffic on area roadways in the project site vicinity. Estimated traffic volumes on San Jacinto Street, bordering the project site, are between 600-650 trips per day (City of Morro Bay 1988). The proposed six residential units would result in approximately 59 new daily trips on area roadways, based on trip generation factors in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition (refer to Appendix A), which would be less than a 10% increase on San Jacinto Street, the lowest-volume roadway that would receive a substantial proportion of project traffic. This addition of new vehicle trips to area roadways would not substantially increase daily traffic on area roadways, or otherwise cause traffic noise levels to increase perceptibly offsite.

LESS THAN SIGNIFICANT IMPACT

e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise?

The project is not located in an adopted airport land use plan or within two miles of a public airport or private airstrip.

NO IMPACT

Mitigation Measures

N-1 Sound Transmission Class Rating for Wall/Window Assemblies

To the extent feasible, habitable spaces in SFR homes will face away from State Route 1. Bathrooms, kitchens, corridors and closets are not habitable spaces. If habitable spaces face east toward State Route 1, a composite/combined wall/window assembly of Sound Transmission Class 33 facing the noise source is required to ensure that the interior habitable space noise level would be below 45 dBA CNEL.

Monitoring: The City of Morro Bay will verify implementation of design details through review and approval of building plans prior to issuance of building permits for the project.

13 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	■
b. Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

California Department of Finance (DOF) current population estimate for the City of Morro Bay is 10,762 (DOF, Table E-1, 2017).The San Luis Obispo County Association of Governments (SLOCOG) Regional Growth Forecast 2010-2050 presents forecasts of population and employment between 2010 and 2050 for the County of San Luis Obispo, including the City of Morro Bay. SLOCOG projects that the City will have a population of 12,261 residents and 7,433 housing units by 2050.

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The project would involve the construction of six new single family residences. The DOF estimates an average occupancy rate of 2.08 persons per household in Morro Bay. Therefore, the project would add up to 13 new residents to the City. The project would not add population beyond that anticipated by the SLOCOG growth forecast. The level of growth associated with the project is anticipated in the City's long term forecast, and would not cumulatively exceed the official regional population projections. The project site is currently undeveloped; therefore, the project would not result in the displacement of a substantial number of housing units or people.

NO IMPACT

14 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1 Fire protection?	☐	☐	■	☐
2 Police protection?	☐	☐	■	☐
3 Schools?	☐	☐	■	☐
4 Parks?	☐	☐	■	☐
5 Other public facilities?	☐	☐	■	☐

Police, Fire, and Emergency Services

The City of Morro Bay provides fire protection, police protection, and emergency services. The project site is served by the City of Morro Bay Police Department, which is located at 850 Morro Bay Boulevard. The City of Morro Bay Fire Department maintains two stations at 715 Harbor Street and 460 Bonita Street. The average response time for the department within the community varies depending on geographic location of the incident. The average response time north of Highway 41 is approximately five minutes and the average response time is south of Highway 41 is approximately three minutes. The department operates and manages two fire engines, one quint, one rescue truck, one command vehicle, two utility vehicles, and a mass casualty vehicle. Additionally, the department also operates an engine provided the California State Office of Emergency Services.

Emergency service includes ambulance and hospital service. Private companies throughout the County and within the City of Morro Bay are provided by private ambulance service. Hospital services are provided by Urgent Care Morro Bay and additional facilities located in San Luis Obispo. Additionally, the Morro Bay Fire Department has mutual and automatic aid agreements with neighboring communities and responds cooperatively with Morro Bay Harbor Patrol and United States Coast Guard for offshore emergency services.

Schools

The City of Morro bay is served by the San Luis Coastal Unified School District (SLCUSD), which is responsible for managing fifteen preschool to twelfth grade schools that serve approximately 7,500 students. Two SLCUSD schools are located in Morro Bay: Morro Bay High School located 235 Atascadero Road and Del Mar Elementary located at 501 Sequoia Street. In the 2016-2017 school years, Morro Bay High School had 813 students and Del Mar Elementary had 409 students.

Parks

The City of Morro Bay manages numerous parks within the City including Morro Rock Beach, Morro Bay High School, Monte Young Park, Del Mar Park, Anchor Street Park, Keiser Park, Morro Bay City Park, Centennial Park, Coleman Park, Bayshore Bluffs, Tidelands Park, North Point, and Cloisters Park. In addition, Morro Bay is home to Morro Strand State Beach and Morro Bay State Park, which are managed by the California Department of Parks and Recreation, and a state marine recreational management area. Together, these recreational resources total over 5,000 acres of recreation and open space area, including 10 miles of ocean and bay front shoreline (City of Morro Bay, 2017). Approximately 95 percent of this shoreline has public lateral access, which provides active recreational opportunities for residents.

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The project site is surrounded by existing development that is served by existing fire protective services, and the project would not result in any change to fire response or performance objectives. There is an existing fire hydrant adjacent to the project site on Coral Avenue. Future construction and structures on site would be required to comply with applicable building and fire codes and would be served by existing fire protection services. No new construction or physical alterations of fire protection facilities would be required.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The project site is surrounded by existing development that is served by existing fire protective services, and the project would not lower police service ratios or increase response times for the Morro Bay Police Department. As a result, no new construction or physical alterations of police protection facilities would be required.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

As described in Section 13, Population and Housing, the project would add up to 13 new residents to the City. Projected capacity over the next five years within SLCUSD's coastal areas is 1,314 (SLCUSD, 2016). The project would not directly increase the population of school-aged children or directly result in an increase in school enrollment. However, consistent with the requirements of Senate Bill 50, the project would be required to pay a school impact fee (Government Code Section 65970) to the SLCUSD. The fees necessary for development of the project would be directed towards the maintenance of adequate schools service levels, which includes the expected increases in capacity. Implementation of the state fee system would ensure that significant impacts to schools, which could directly result from implementation of the project, would be offset by development fees. Therefore, the project would not result in new physical impacts associated with school facility expansion or new school facility construction.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

a.5. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?

As described in Section 13, Population and Housing, the project would add up to 13 new residents to the City. The increase in the City's population as a result of the project would result in an incremental increase use of nearby City parks and other public facilities. However, the City has adequate City- and State-managed recreational facilities. The Recreation and Parks Department upgrades City facilities as funds become available. Therefore, the addition of 13 new residents to the City would not lead to the substantial physical deterioration of facilities, or require additional facilities.

LESS THAN SIGNIFICANT IMPACT

15 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	■	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	■	☐

The City of Morro Bay currently has 31.56 acres of park space. The City manages numerous parks including Morro Rock Beach, Morro Bay High School, Monte Young Park, Del Mar Park, Anchor Street Park, Keiser Park, Morro Bay City Park, Centennial Park, Coleman Park, Bayshore Bluffs, Tidelands Park, North Point, and Cloisters Park. In addition, Morro Bay is home to Morro Strand State Beach and Morro Bay State Park, which are managed by the California Department of Parks and Recreation, as well as a state marine recreational management area. Together, these recreational resources total over 5,000 acres of recreation and open space area. In addition to parks, Morro Bay maintains numerous City-owned buildings and open areas available to community members for use and for rent, including basketball courts, tennis courts, and baseball fields.

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project does not include any new recreational facilities, and the project site is located adjacent to community recreational and park facilities, including Cloisters Community Park and Morro Strand State Beach. The increase in the City's population as a result of the project would result in an incremental increase use of nearby recreational facilities. However, the increase in use of City parks and recreational facilities as a result of the project would be minimal and the project would not result in the need for new or altered recreational facilities.

LESS THAN SIGNIFICANT IMPACT

16 Transportation/Traffic

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. 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?	☐	☐	■	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	■	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	■
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	☐	■
e. Result in inadequate emergency access?	☐	☐	☐	■
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	☐	☐	☐	■

The project site is located at San Jacinto Street and Coral Avenue adjacent to SR 1. Estimated traffic volumes on San Jacinto Street, bordering the project site, are between 600-650 trips per day (City of Morro Bay 1988). The project would result in approximately 59 new daily weekday trips (refer to Appendix A).

a. Would the project conflict with an applicable plan, ordinance or policy establishing a measure 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?

b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Project vehicle trips would primarily use Coral Avenue and San Jacinto Street to access SR 1. Roadways in the site vicinity, including the intersections at San Jacinto Street/SR 1 and San Jacinto Street/Main Street, function acceptably (City of Morro Bay, 2017), and project-added vehicle trips would not add substantially to the demand on the circulation system or conflict with performance standards in any applicable circulation system plan, congestion management program, or any other agency's plans for congestion management.

LESS THAN SIGNIFICANT IMPACT

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The project is not located within the any airport influence area or Airport Land Use Plan. Therefore, the project would not affect airport operations, and would have no direct or indirect effects on air traffic.

NO IMPACT

d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

e. Would the project result in inadequate emergency access?

The project does not include any new roadways or other public infrastructure. Therefore the project would not result in roadway hazards on or in the vicinity of the site. Project site design, including ingress and egress, would be required to comply with applicable standards pertaining to site access. Parking would be prohibited on Verdon Court to facilitate fire and emergency access, consistent with City fire code standards

NO IMPACT

f. Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?

The project site is located adjacent to transit options and bicycle and pedestrian facilities. The project is located along San Jacinto Street, which is a corridor proposed from a Class II Bike Lane and proposed sidewalk improvement (City of Morro Bay, 13-25, 2017). Additionally, the site is located within 600 feet of regional and local transit routes, including San Luis Obispo Regional Transit Agency Route 15 and Morro Bay Transit. The project would not result in any changes to transit operations, bicycle, or pedestrian facilities, or result in decreased performance or safety of these operations and facilities.

NO IMPACT

17 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	■	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Cod Section 2024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significant of the resource to a California Native American tribe.	☐	☐	■	☐

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 2024.1?

Pursuant to AB 52, the City of Morro Bay has prepared and sent letters to representatives of tribes who have requested AB 52 consultation. Two representatives have inquired about or provided comments on the project, including a request that the City conducted an updated cultural records search. City staff is managing formal consultation with tribes that have made inquiries and requests, including an updated records search that was received by the City on January 11, 2018. As discussed in Section 4, no historical and/or archaeological resources have been identified on the project site, and Mitigation Measure CUL-1 has been included to provide mitigation for the potential encounter of previously unidentified archaeological or historic artifacts during project groundbreaking or earthmoving activities.

LESS THAN SIGNIFICANT IMPACT

18 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	■	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	■	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	■	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	■	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	■	☐

Water Supply

The Morro Bay Public Works Water Division provides water service for the City. The 2015 UWMP provides water supply and demand estimates for 25 years into the future). The UWMP projects that the service area population will reach 12,255 in 2035 (City of Morro Bay 2015). The City received the majority of its water supply from the State Water Project (SWP), which is purchased the San Luis

Obispo County, and local groundwater. Two local groundwater basins, Morro and Chorro Basins, provide the majority of groundwater for the City and the City operates seven drinking water wells, four of them active, in the Morro Groundwater Basin, and eight wells in the Chorro Groundwater Basin, with only one being active due to high nitrate levels. Additionally, a desalination plant supplements the City's water supply in drought conditions. In 2015, total water production available to the City was 1,088 acre feet. The City's water supply is projected to remain relatively constant from 2015-2035 to meet associated projected water demands, and the City is expected to have an available water supply in excess of projected demands through 2035.

Wastewater

The Morro Bay – Cayucos Wastewater Treatment Plan (MBCSD) is committed to consistently meeting and exceeding performance requirements and providing wastewater treatment on behalf of the communities of Morro Bay and Cayucos. The facility is jointly owned by the City of Morro Bay and the Cayucos Sanitary District and serves approximately 13,300 people and in 2007, had an average daily flow of 1.089 million gallons per day (City of Morro Bay 2017). The Morro Bay Wastewater Treatment Plant (WWTP) is rated for an average daily dry flow weather (ADFW) of 2.06 mgd, a peak seasonal dry weather flow (PSDWF) of 2.36 mgd, and a peak hour flow (PHF) of 6.6 mgd. The rated design capacity for secondary treatment facilities is 0.97 mgd. Flows in excess of 0.97 receive primary treatment only (City of Morro Bay 2007).

Stormwater

The City is in compliance the National Pollutant Discharge Elimination System (NPDES) General Permit for the discharge of stormwater from small-sized Municipal Separate Storm Sewer Systems (MS4). The current Phase II Small MS4 General Permit became effective on July 1, 2013. The City complies with a list of requirements which includes the City's Stormwater Management Program. According to the City's Storm Drainage Master Plan (SDMP), which was adopted in 1987, all development and redevelopment projects with create or replace more than 2,500 square feet of impervious surface must incorporate stormwater management controls as describes in the Stormwater Management Guide Manual for Low Impact Development and Post-Construction Requirements (City of Morro Bay 2017).

Solid Waste

The City's Municipal Code Section 8.16 outlines garbage collection in the City. Waste collected in Morro Bay is deposited at the Cold Canyon Landfill, which has a permitted capacity of approximately 23 million cubic yards, with an anticipated 62 years of remaining life (City of Morro Bay 2017). The City contracts with Morro Bay Garbage, which serves the San Luis Obispo Integrated Waste Management Authority jurisdictional area (IWMA) (City of Morro Bay 2017).

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

e. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Between 2002 and 2006, the WWTP had a 5-year average flow of 0.86 mgd (City of Morro Bay 2007). The City anticipates that the WWTP will reach capacity in 2021 and is in the process of developing an updated facility master plan to accommodate future growth. The project would not induce substantial population growth or otherwise contribute to a substantial increase in demand for wastewater treatment. No new or additional wastewater treatment facilities would be required to serve the project. Additionally, the project would not cause an exceedance of wastewater treatment requirements of the Central Coastal Regional Water Quality Control Board.

LESS THAN SIGNIFICANT IMPACT

c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The project site is currently undeveloped, which an existing drainage feature on the northeast portion of the site. The proposed development would increase impervious surface on the site. Surface drainage would be directed to Verdon Court and collected in a storm drain line that would connect to the existing public storm line in Coral Avenue. In compliance with the California State Water Quality Control Board's current Phase II Small MS4 General permit, the project would be required to incorporate Stormwater Management Guidance Manual Low Impact Development and Post-Construction Requirements (City of Morro Bay 2014). A SWCP was developed for the site in 2017 that requires drainage facilities to provide adequate treatment capacity for stormwater runoff. As described in the SWCP, on-site retention and infiltration facilities would have sufficient capacity to treat estimated stormwater runoff associated with site development, and no new additional offsite drainage facilities would be required (Gary Taylor & Associates 2017).

LESS THAN SIGNIFICANT IMPACT

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The UWMP indicates that the City is expected to have an available supply in excess of projected demands through 2035. The proposed residential development is consistent with the land use designation and zoning for the project site, and anticipated growth associated with development of the site is accounted for in the UWMP. Therefore, existing water entitlements and resources would be sufficient to serve the project, and the project would not result in the need for new water entitlements or resources.

LESS THAN SIGNIFICANT IMPACT

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Solid waste generated as part of the project would be transported to Cold Canyon Landfill, which has a permitted throughput of 1,200 tons per day (CalRecycle 2015). The landfill has been recently expanded and has adequate capacity for an estimated 62 years of remaining life (City of Morro Bay, 2017). Residential disposal rates in San Luis Obispo County were 4.9 pounds per person per day in 2014 (CalRecycle 2015). The project is anticipated to add up to 13 new residents to the City, which would result in a projected increase of 63.7 pounds of waste per day. Therefore, long-term disposal needs associated with the project would not exceed the capacity of local facilities. In addition, the project would be required to comply with applicable federal, state, and local regulations regarding solid waste.

LESS THAN SIGNIFICANT IMPACT

19 Mandatory Findings of Significance

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

a. Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Based on the information and analysis provided throughout this Initial Study, implementation of the project would not substantially degrade the quality of the environment and would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of California history or prehistory. Because the project would require the removal of existing trees, mitigation is required to ensure that impacts to migratory birds would be reduced to a less than significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Current, planned or proposed developments in the City of Morro Bay include commercial, industrial, and residential projects. As described in the discussion of environmental checklist Sections 1-18, all environmental issues considered in this Initial Study were found to have either no impact, a less than significant impact, or a less than significant impact with mitigation incorporated. Cumulative impacts of several resource areas have been addressed in the individual resource sections, including Air Quality, Greenhouse Gas Emissions, Noise, Transportation/Circulation, and Utilities and Service Systems (CEQA Guidelines Section 15064(h)(3)). These impacts would be less than significant at the project level and cumulatively. Other resource areas were determined to have no impact in comparison to existing conditions and therefore would not contribute to cumulative impacts, such as Population and Housing, Public Services, Recreation, Mineral Resources, and Agricultural Resources. Other issues (e.g., Geology/Soils, Hazards and Hazardous Materials) are by their nature project-specific and impacts at one location do not add to impacts at other locations or create additive impacts. Therefore, implementation of the project would result in less than significant cumulative environmental impacts.

LESS THAN SIGNIFICANT IMPACT

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Effects to human beings are generally associated with air quality, noise, traffic safety, geology/soils, and hazards/hazardous materials. As discussed in this Initial Study, with standard regulatory compliance the project would result in less than significant impacts related to these issues.

LESS THAN SIGNIFICANT IMPACT

Mitigation Measures

Mitigation Measure BIO-1 would ensure that impacts to migratory birds would be reduced to a less than significant level.

Mitigation Summary

AES-1 Lighting Plan

Prior to issuance of a building permit, a comprehensive lighting plan shall be submitted for review and approval by the City. The lighting plan shall be prepared using guidance and best practices endorsed by the International Dark Sky Association. The lighting plan shall address all aspects of the lighting, including but not limited to all buildings, infrastructure, and driveways. The lighting plan shall include the following at minimum:

a) The point source of all exterior lighting shall be shielded from offsite views.
b) Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields.
c) Illumination from exterior lights shall be the lowest level allowed by public safety standards.
d) Exterior lighting shall be designed to not focus illumination onto exterior walls.
e) Bright white-colored light shall not be used for exterior lighting.

Monitoring: The City of Morro Bay would verify implementation of lighting design details through review and approval of the lighting plan and building plans prior to issuance of building permits for the project.

BIO-1 Nesting Bird Mitigation

Vegetation removal and initial site disturbance for any project elements shall be conducted between July 1 and January 31, outside of the nesting season for birds. If vegetation removal would occur during the bird nesting season (February 1 to June 30th), preconstruction nesting bird surveys shall be required to determine if any active nests are present on the project site. If no active nests are found, then no further mitigation shall be required. If any active nests are found that would be impacted by construction, then the nest sites shall be avoided with the establishment of a non-disturbance buffer zone around active nests as determined by a qualified biologist. Nest sites shall be avoided and protected with the non-disturbance buffer zone until the adults and young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist.

Monitoring: Construction and grading plans shall clearly note the above mitigation measure on applicable sheets, and be clearly visible to contractors and City inspectors. Community Development Department staff shall inspect the site for compliance with the above requirement.

BIO-2 Tree Replacement

Eucalyptus trees removed shall be replaced at a ratio of two five-gallon trees, or one 15-gallon tree, for every tree removed. The replacement trees may be planted on the project site, or on other privately-held lands within the property owners' permission, or presented to the City to plant on public lands. Replacement trees as appropriate for the site shall be incorporated into a landscape plan for the project, and if planted prior to construction of residences, shall be protected during construction to ensure their viability.

Monitoring: The City of Morro Bay would approve landscape plans prior to issuance of building permits for the project and verify implementation of the landscape plan prior to occupancy.

CUL-1 Construction Monitoring

A qualified archaeologist with experience in Northern Chumash Tribal Cultural materials and paleontologist shall monitor all groundbreaking and earthmoving activities within the project site. In the event that archaeological and historic artifacts are encountered during project construction, all work in the vicinity of the find will be halted until such time as the find is evaluated by a qualified archaeologist and appropriate mitigation (e.g., curation, preservation in place, etc.), if necessary, is implemented. If further testing is required as a result of encounter with archaeological or historic artifacts, a Northern Chumash monitor shall be retained for monitoring.

In the event that buried or otherwise unknown cultural resources are discovered during construction, work shall be suspended and the City of Morro Bay shall be contacted immediately. Appropriate mitigation measures shall be developed by qualified archeologist or paleontologist if necessary. In the event that human remains are discovered during construction, if the coroner determines the remains are Native American, the NAHC shall be contacted and the remains shall be left in situ and protected until a decision is made on their final disposition.

Monitoring: Construction and grading plans shall clearly note the above mitigation measure on applicable sheets, and be clearly visible to contractors and City inspectors. Community Development Department staff shall inspect the site for compliance with the above requirement.

N-1 Sound Transmission Class Rating for Wall/Window Assemblies

To the extent feasible, habitable spaces in SFR homes will face away from State Route 1. Bathrooms, kitchens, corridors and closets are not habitable spaces. If habitable spaces face east toward State Route 1, a composite/combined wall/window assembly of Sound Transmission Class 33 facing the noise source is required to ensure that the interior habitable space noise level would be below 45 dBA CNEL.

Monitoring: The City of Morro Bay will verify implementation of design details through review and approval of building plans prior to issuance of building permits for the project.

The project sponsor's signature below indicates agreement with the finding that while the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent, in the form of the mitigation measures described in this Mitigated Negative Declaration.

Signature	Date
Printed Name	Title

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List of Preparers

Rincon Consultants, Inc. prepared this IS-MND under contract to the City of Morro Bay. Persons involved in data gathering analysis, project management, and quality control are listed below.

RINCON CONSULTANTS, INC.

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Chris Bersbach, Senior Project Manager
John Holder, Associate Environmental Planner
Allysen Valencia, GIS Analyst
Chris Thomas, Graphics Tech
Debra Jane Seltzer, Document Production Specialist

Appendix A

CalEEMod Air Quality and Greenhouse Gas Emissions Estimates

Coral Avenue Subdivision Project

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	6.00	Dwelling Unit	1.95	10,800.00	17

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	34.0556	22.7277	15.4168	0.0254	5.8787	1.2871	6.7615	2.9747	1.2025	3.7869	0.0000	2,484.6550	2,484.6550	0.6057	0.0000	2,499.7966
Maximum	**34.0556**	**22.7277**	**15.4168**	**0.0254**	**5.8787**	**1.2871**	**6.7615**	**2.9747**	**1.2025**	**3.7869**	**0.0000**	**2,484.6550**	**2,484.6550**	**0.6057**	**0.0000**	**2,499.7966**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	34.0556	22.7277	15.4168	0.0254	5.8787	1.2871	6.7615	2.9747	1.2025	3.7869	0.0000	2,484.6550	2,484.6550	0.6057	0.0000	2,499.7966
Maximum	**34.0556**	**22.7277**	**15.4168**	**0.0254**	**5.8787**	**1.2871**	**6.7615**	**2.9747**	**1.2025**	**3.7869**	**0.0000**	**2,484.6550**	**2,484.6550**	**0.6057**	**0.0000**	**2,499.7966**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3388	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	0.8913	0.8913	8.7000e-004	0.0000	0.9130
Energy	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
Mobile	0.1250	0.4988	1.3924	3.7400e-003	0.3204	4.5300e-003	0.3249	0.0856	4.2700e-003	0.0899		377.0989	377.0989	0.0157		377.4917
Total	**0.4690**	**0.5485**	**1.9078**	**4.0500e-003**	**0.3204**	**0.0108**	**0.3312**	**0.0856**	**0.0106**	**0.0962**	**0.0000**	**434.1999**	**434.1999**	**0.0177**	**1.0300e-003**	**434.9485**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3388	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	0.8913	0.8913	8.7000e-004	0.0000	0.9130
Energy	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
Mobile	0.1250	0.4988	1.3924	3.7400e-003	0.3204	4.5300e-003	0.3249	0.0856	4.2700e-003	0.0899		377.0989	377.0989	0.0157		377.4917
Total	**0.4690**	**0.5485**	**1.9078**	**4.0500e-003**	**0.3204**	**0.0108**	**0.3312**	**0.0856**	**0.0106**	**0.0962**	**0.0000**	**434.1999**	**434.1999**	**0.0177**	**1.0300e-003**	**434.9485**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/28/2019	5	20	
2	Site Preparation	Site Preparation	1/29/2019	1/30/2019	5	2	
3	Grading	Grading	1/31/2019	2/5/2019	5	4	
4	Building Construction	Building Construction	2/6/2019	11/12/2019	5	200	
5	Paving	Paving	11/13/2019	11/26/2019	5	10	
6	Architectural Coating	Architectural Coating	11/27/2019	12/10/2019	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 21,870; Residential Outdoor: 7,290; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Coral Avenue Subdivision Project - San Luis Obispo County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	2.00	1.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017		2,360.7198	2,360.7198	0.6011		2,375.7475
Total	**2.2950**	**22.6751**	**14.8943**	**0.0241**		**1.2863**	**1.2863**		**1.2017**	**1.2017**		**2,360.7198**	**2,360.7198**	**0.6011**		**2,375.7475**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0611	0.0527	0.5224	1.2500e-003	0.1285	8.5000e-004	0.1294	0.0341	7.8000e-004	0.0349		123.9353	123.9353	4.5500e-003		124.0491
Total	**0.0611**	**0.0527**	**0.5224**	**1.2500e-003**	**0.1285**	**8.5000e-004**	**0.1294**	**0.0341**	**7.8000e-004**	**0.0349**		**123.9353**	**123.9353**	**4.5500e-003**		**124.0491**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017	0.0000	2,360.7197	2,360.7197	0.6011		2,375.7475
Total	**2.2950**	**22.6751**	**14.8943**	**0.0241**		**1.2863**	**1.2863**		**1.2017**	**1.2017**	**0.0000**	**2,360.7197**	**2,360.7197**	**0.6011**		**2,375.7475**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0611	0.0527	0.5224	1.2500e-003	0.1285	8.5000e-004	0.1294	0.0341	7.8000e-004	0.0349		123.9353	123.9353	4.5500e-003		124.0491
Total	**0.0611**	**0.0527**	**0.5224**	**1.2500e-003**	**0.1285**	**8.5000e-004**	**0.1294**	**0.0341**	**7.8000e-004**	**0.0349**		**123.9353**	**123.9353**	**4.5500e-003**		**124.0491**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0376	0.0324	0.3215	7.7000e-004	0.0791	5.2000e-004	0.0796	0.0210	4.8000e-004	0.0215		76.2679	76.2679	2.8000e-003		76.3379
Total	**0.0376**	**0.0324**	**0.3215**	**7.7000e-004**	**0.0791**	**5.2000e-004**	**0.0796**	**0.0210**	**4.8000e-004**	**0.0215**		**76.2679**	**76.2679**	**2.8000e-003**		**76.3379**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0376	0.0324	0.3215	7.7000e-004	0.0791	5.2000e-004	0.0796	0.0210	4.8000e-004	0.0215		76.2679	76.2679	2.8000e-003		76.3379
Total	**0.0376**	**0.0324**	**0.3215**	**7.7000e-004**	**0.0791**	**5.2000e-004**	**0.0796**	**0.0210**	**4.8000e-004**	**0.0215**		**76.2679**	**76.2679**	**2.8000e-003**		**76.3379**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**4.9143**	**0.7365**	**5.6507**	**2.5256**	**0.6775**	**3.2032**		**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0376	0.0324	0.3215	7.7000e-004	0.0791	5.2000e-004	0.0796	0.0210	4.8000e-004	0.0215		76.2679	76.2679	2.8000e-003		76.3379
Total	**0.0376**	**0.0324**	**0.3215**	**7.7000e-004**	**0.0791**	**5.2000e-004**	**0.0796**	**0.0210**	**4.8000e-004**	**0.0215**		**76.2679**	**76.2679**	**2.8000e-003**		**76.3379**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**4.9143**	**0.7365**	**5.6507**	**2.5256**	**0.6775**	**3.2032**	**0.0000**	**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0376	0.0324	0.3215	7.7000e-004	0.0791	5.2000e-004	0.0796	0.0210	4.8000e-004	0.0215		76.2679	76.2679	2.8000e-003		76.3379
Total	**0.0376**	**0.0324**	**0.3215**	**7.7000e-004**	**0.0791**	**5.2000e-004**	**0.0796**	**0.0210**	**4.8000e-004**	**0.0215**		**76.2679**	**76.2679**	**2.8000e-003**		**76.3379**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.5800e-003	0.1129	0.0336	2.0000e-004	4.6400e-003	9.0000e-004	5.5400e-003	1.3400e-003	8.6000e-004	2.2000e-003		21.5006	21.5006	1.3200e-003		21.5336
Worker	9.3900e-003	8.1000e-003	0.0804	1.9000e-004	0.0198	1.3000e-004	0.0199	5.2400e-003	1.2000e-004	5.3600e-003		19.0670	19.0670	7.0000e-004		19.0845
Total	**0.0140**	**0.1210**	**0.1140**	**3.9000e-004**	**0.0244**	**1.0300e-003**	**0.0254**	**6.5800e-003**	**9.8000e-004**	**7.5600e-003**		**40.5675**	**40.5675**	**2.0200e-003**		**40.6181**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.5800e-003	0.1129	0.0336	2.0000e-004	4.6400e-003	9.0000e-004	5.5400e-003	1.3400e-003	8.6000e-004	2.2000e-003		21.5006	21.5006	1.3200e-003		21.5336
Worker	9.3900e-003	8.1000e-003	0.0804	1.9000e-004	0.0198	1.3000e-004	0.0199	5.2400e-003	1.2000e-004	5.3600e-003		19.0670	19.0670	7.0000e-004		19.0845
Total	**0.0140**	**0.1210**	**0.1140**	**3.9000e-004**	**0.0244**	**1.0300e-003**	**0.0254**	**6.5800e-003**	**9.8000e-004**	**7.5600e-003**		**40.5675**	**40.5675**	**2.0200e-003**		**40.6181**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815		1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**		**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0611	0.0527	0.5224	1.2500e-003	0.1285	8.5000e-004	0.1294	0.0341	7.8000e-004	0.0349		123.9353	123.9353	4.5500e-003		124.0491
Total	**0.0611**	**0.0527**	**0.5224**	**1.2500e-003**	**0.1285**	**8.5000e-004**	**0.1294**	**0.0341**	**7.8000e-004**	**0.0349**		**123.9353**	**123.9353**	**4.5500e-003**		**124.0491**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815	0.0000	1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**	**0.0000**	**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0611	0.0527	0.5224	1.2500e-003	0.1285	8.5000e-004	0.1294	0.0341	7.8000e-004	0.0349		123.9353	123.9353	4.5500e-003		124.0491
Total	**0.0611**	**0.0527**	**0.5224**	**1.2500e-003**	**0.1285**	**8.5000e-004**	**0.1294**	**0.0341**	**7.8000e-004**	**0.0349**		**123.9353**	**123.9353**	**4.5500e-003**		**124.0491**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**34.0556**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**34.0556**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1250	0.4988	1.3924	3.7400e-003	0.3204	4.5300e-003	0.3249	0.0856	4.2700e-003	0.0899		377.0989	377.0989	0.0157		377.4917
Unmitigated	0.1250	0.4988	1.3924	3.7400e-003	0.3204	4.5300e-003	0.3249	0.0856	4.2700e-003	0.0899		377.0989	377.0989	0.0157		377.4917

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	57.12	59.46	51.72	144,063	144,063
Total	57.12	59.46	51.72	144,063	144,063

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
NaturalGas Unmitigated	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	477.782	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
Total		**5.1500e-003**	**0.0440**	**0.0187**	**2.8000e-004**		**3.5600e-003**	**3.5600e-003**		**3.5600e-003**	**3.5600e-003**		**56.2097**	**56.2097**	**1.0800e-003**	**1.0300e-003**	**56.5437**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0.477782	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
Total		**5.1500e-003**	**0.0440**	**0.0187**	**2.8000e-004**		**3.5600e-003**	**3.5600e-003**		**3.5600e-003**	**3.5600e-003**		**56.2097**	**56.2097**	**1.0800e-003**	**1.0300e-003**	**56.5437**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3388	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	0.8913	0.8913	8.7000e-004	0.0000	0.9130
Unmitigated	0.3388	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	0.8913	0.8913	8.7000e-004	0.0000	0.9130

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0926					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2311					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0151	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003		0.8913	0.8913	8.7000e-004		0.9130
Total	**0.3388**	**5.7400e-003**	**0.4967**	**3.0000e-005**		**2.7300e-003**	**2.7300e-003**		**2.7300e-003**	**2.7300e-003**	**0.0000**	**0.8913**	**0.8913**	**8.7000e-004**	**0.0000**	**0.9130**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0926					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2311					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0151	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003		0.8913	0.8913	8.7000e-004		0.9130
Total	**0.3388**	**5.7400e-003**	**0.4967**	**3.0000e-005**		**2.7300e-003**	**2.7300e-003**		**2.7300e-003**	**2.7300e-003**	**0.0000**	**0.8913**	**0.8913**	**8.7000e-004**	**0.0000**	**0.9130**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Coral Avenue Subdivision Project

San Luis Obispo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	6.00	Dwelling Unit	1.95	10,800.00	17

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	34.0556	22.7348	15.4053	0.0253	5.8787	1.2871	6.7615	2.9747	1.2025	3.7869	0.0000	2,478.8579	2,478.8579	0.6055	0.0000	2,493.9965
Maximum	**34.0556**	**22.7348**	**15.4053**	**0.0253**	**5.8787**	**1.2871**	**6.7615**	**2.9747**	**1.2025**	**3.7869**	**0.0000**	**2,478.8579**	**2,478.8579**	**0.6055**	**0.0000**	**2,493.9965**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	34.0556	22.7348	15.4053	0.0253	5.8787	1.2871	6.7615	2.9747	1.2025	3.7869	0.0000	2,478.8579	2,478.8579	0.6055	0.0000	2,493.9965
Maximum	**34.0556**	**22.7348**	**15.4053**	**0.0253**	**5.8787**	**1.2871**	**6.7615**	**2.9747**	**1.2025**	**3.7869**	**0.0000**	**2,478.8579**	**2,478.8579**	**0.6055**	**0.0000**	**2,493.9965**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3388	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	0.8913	0.8913	8.7000e-004	0.0000	0.9130
Energy	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
Mobile	0.1219	0.5186	1.4263	3.6000e-003	0.3204	4.5700e-003	0.3249	0.0856	4.3000e-003	0.0899		362.3527	362.3527	0.0159		362.7498
Total	**0.4658**	**0.5684**	**1.9417**	**3.9100e-003**	**0.3204**	**0.0109**	**0.3312**	**0.0856**	**0.0106**	**0.0962**	**0.0000**	**419.4536**	**419.4536**	**0.0178**	**1.0300e-003**	**420.2065**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3388	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	0.8913	0.8913	8.7000e-004	0.0000	0.9130
Energy	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
Mobile	0.1219	0.5186	1.4263	3.6000e-003	0.3204	4.5700e-003	0.3249	0.0856	4.3000e-003	0.0899		362.3527	362.3527	0.0159		362.7498
Total	**0.4658**	**0.5684**	**1.9417**	**3.9100e-003**	**0.3204**	**0.0109**	**0.3312**	**0.0856**	**0.0106**	**0.0962**	**0.0000**	**419.4536**	**419.4536**	**0.0178**	**1.0300e-003**	**420.2065**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/28/2019	5	20	
2	Site Preparation	Site Preparation	1/29/2019	1/30/2019	5	2	
3	Grading	Grading	1/31/2019	2/5/2019	5	4	
4	Building Construction	Building Construction	2/6/2019	11/12/2019	5	200	
5	Paving	Paving	11/13/2019	11/26/2019	5	10	
6	Architectural Coating	Architectural Coating	11/27/2019	12/10/2019	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 21,870; Residential Outdoor: 7,290; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Coral Avenue Subdivision Project - San Luis Obispo County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	2.00	1.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017		2,360.7198	2,360.7198	0.6011		2,375.7475
Total	**2.2950**	**22.6751**	**14.8943**	**0.0241**		**1.2863**	**1.2863**		**1.2017**	**1.2017**		**2,360.7198**	**2,360.7198**	**0.6011**		**2,375.7475**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0695	0.0598	0.5110	1.1900e-003	0.1285	8.5000e-004	0.1294	0.0341	7.8000e-004	0.0349		118.1381	118.1381	4.4300e-003		118.2490
Total	**0.0695**	**0.0598**	**0.5110**	**1.1900e-003**	**0.1285**	**8.5000e-004**	**0.1294**	**0.0341**	**7.8000e-004**	**0.0349**		**118.1381**	**118.1381**	**4.4300e-003**		**118.2490**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2950	22.6751	14.8943	0.0241		1.2863	1.2863		1.2017	1.2017	0.0000	2,360.7197	2,360.7197	0.6011		2,375.7475
Total	**2.2950**	**22.6751**	**14.8943**	**0.0241**		**1.2863**	**1.2863**		**1.2017**	**1.2017**	**0.0000**	**2,360.7197**	**2,360.7197**	**0.6011**		**2,375.7475**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0695	0.0598	0.5110	1.1900e-003	0.1285	8.5000e-004	0.1294	0.0341	7.8000e-004	0.0349		118.1381	118.1381	4.4300e-003		118.2490
Total	**0.0695**	**0.0598**	**0.5110**	**1.1900e-003**	**0.1285**	**8.5000e-004**	**0.1294**	**0.0341**	**7.8000e-004**	**0.0349**		**118.1381**	**118.1381**	**4.4300e-003**		**118.2490**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0428	0.0368	0.3145	7.3000e-004	0.0791	5.2000e-004	0.0796	0.0210	4.8000e-004	0.0215		72.7004	72.7004	2.7300e-003		72.7686
Total	**0.0428**	**0.0368**	**0.3145**	**7.3000e-004**	**0.0791**	**5.2000e-004**	**0.0796**	**0.0210**	**4.8000e-004**	**0.0215**		**72.7004**	**72.7004**	**2.7300e-003**		**72.7686**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0428	0.0368	0.3145	7.3000e-004	0.0791	5.2000e-004	0.0796	0.0210	4.8000e-004	0.0215		72.7004	72.7004	2.7300e-003		72.7686
Total	**0.0428**	**0.0368**	**0.3145**	**7.3000e-004**	**0.0791**	**5.2000e-004**	**0.0796**	**0.0210**	**4.8000e-004**	**0.0215**		**72.7004**	**72.7004**	**2.7300e-003**		**72.7686**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**4.9143**	**0.7365**	**5.6507**	**2.5256**	**0.6775**	**3.2032**		**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0428	0.0368	0.3145	7.3000e-004	0.0791	5.2000e-004	0.0796	0.0210	4.8000e-004	0.0215		72.7004	72.7004	2.7300e-003		72.7686
Total	**0.0428**	**0.0368**	**0.3145**	**7.3000e-004**	**0.0791**	**5.2000e-004**	**0.0796**	**0.0210**	**4.8000e-004**	**0.0215**		**72.7004**	**72.7004**	**2.7300e-003**		**72.7686**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359
Total	**1.4197**	**16.0357**	**6.6065**	**0.0141**	**4.9143**	**0.7365**	**5.6507**	**2.5256**	**0.6775**	**3.2032**	**0.0000**	**1,396.3909**	**1,396.3909**	**0.4418**		**1,407.4359**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0428	0.0368	0.3145	7.3000e-004	0.0791	5.2000e-004	0.0796	0.0210	4.8000e-004	0.0215		72.7004	72.7004	2.7300e-003		72.7686
Total	**0.0428**	**0.0368**	**0.3145**	**7.3000e-004**	**0.0791**	**5.2000e-004**	**0.0796**	**0.0210**	**4.8000e-004**	**0.0215**		**72.7004**	**72.7004**	**2.7300e-003**		**72.7686**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8100e-003	0.1125	0.0378	2.0000e-004	4.6400e-003	9.3000e-004	5.5700e-003	1.3400e-003	8.9000e-004	2.2200e-003		20.8722	20.8722	1.4100e-003		20.9075
Worker	0.0107	9.2000e-003	0.0786	1.8000e-004	0.0198	1.3000e-004	0.0199	5.2400e-003	1.2000e-004	5.3600e-003		18.1751	18.1751	6.8000e-004		18.1922
Total	**0.0155**	**0.1217**	**0.1164**	**3.8000e-004**	**0.0244**	**1.0600e-003**	**0.0255**	**6.5800e-003**	**1.0100e-003**	**7.5800e-003**		**39.0473**	**39.0473**	**2.0900e-003**		**39.0996**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.8100e-003	0.1125	0.0378	2.0000e-004	4.6400e-003	9.3000e-004	5.5700e-003	1.3400e-003	8.9000e-004	2.2200e-003		20.8722	20.8722	1.4100e-003		20.9075
Worker	0.0107	9.2000e-003	0.0786	1.8000e-004	0.0198	1.3000e-004	0.0199	5.2400e-003	1.2000e-004	5.3600e-003		18.1751	18.1751	6.8000e-004		18.1922
Total	**0.0155**	**0.1217**	**0.1164**	**3.8000e-004**	**0.0244**	**1.0600e-003**	**0.0255**	**6.5800e-003**	**1.0100e-003**	**7.5800e-003**		**39.0473**	**39.0473**	**2.0900e-003**		**39.0996**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815		1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**		**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0695	0.0598	0.5110	1.1900e-003	0.1285	8.5000e-004	0.1294	0.0341	7.8000e-004	0.0349		118.1381	118.1381	4.4300e-003		118.2490
Total	**0.0695**	**0.0598**	**0.5110**	**1.1900e-003**	**0.1285**	**8.5000e-004**	**0.1294**	**0.0341**	**7.8000e-004**	**0.0349**		**118.1381**	**118.1381**	**4.4300e-003**		**118.2490**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815	0.0000	1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**	**0.0000**	**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0695	0.0598	0.5110	1.1900e-003	0.1285	8.5000e-004	0.1294	0.0341	7.8000e-004	0.0349		118.1381	118.1381	4.4300e-003		118.2490
Total	**0.0695**	**0.0598**	**0.5110**	**1.1900e-003**	**0.1285**	**8.5000e-004**	**0.1294**	**0.0341**	**7.8000e-004**	**0.0349**		**118.1381**	**118.1381**	**4.4300e-003**		**118.2490**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**34.0556**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	33.7892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**34.0556**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1219	0.5186	1.4263	3.6000e-003	0.3204	4.5700e-003	0.3249	0.0856	4.3000e-003	0.0899		362.3527	362.3527	0.0159		362.7498
Unmitigated	0.1219	0.5186	1.4263	3.6000e-003	0.3204	4.5700e-003	0.3249	0.0856	4.3000e-003	0.0899		362.3527	362.3527	0.0159		362.7498

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	57.12	59.46	51.72	144,063	144,063
Total	57.12	59.46	51.72	144,063	144,063

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
NaturalGas Unmitigated	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	477.782	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
Total		**5.1500e-003**	**0.0440**	**0.0187**	**2.8000e-004**		**3.5600e-003**	**3.5600e-003**		**3.5600e-003**	**3.5600e-003**		**56.2097**	**56.2097**	**1.0800e-003**	**1.0300e-003**	**56.5437**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0.477782	5.1500e-003	0.0440	0.0187	2.8000e-004		3.5600e-003	3.5600e-003		3.5600e-003	3.5600e-003		56.2097	56.2097	1.0800e-003	1.0300e-003	56.5437
Total		**5.1500e-003**	**0.0440**	**0.0187**	**2.8000e-004**		**3.5600e-003**	**3.5600e-003**		**3.5600e-003**	**3.5600e-003**		**56.2097**	**56.2097**	**1.0800e-003**	**1.0300e-003**	**56.5437**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3388	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	0.8913	0.8913	8.7000e-004	0.0000	0.9130
Unmitigated	0.3388	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	0.8913	0.8913	8.7000e-004	0.0000	0.9130

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0926					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2311					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0151	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003		0.8913	0.8913	8.7000e-004		0.9130
Total	**0.3388**	**5.7400e-003**	**0.4967**	**3.0000e-005**		**2.7300e-003**	**2.7300e-003**		**2.7300e-003**	**2.7300e-003**	**0.0000**	**0.8913**	**0.8913**	**8.7000e-004**	**0.0000**	**0.9130**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0926					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2311					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0151	5.7400e-003	0.4967	3.0000e-005		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003		0.8913	0.8913	8.7000e-004		0.9130
Total	**0.3388**	**5.7400e-003**	**0.4967**	**3.0000e-005**		**2.7300e-003**	**2.7300e-003**		**2.7300e-003**	**2.7300e-003**	**0.0000**	**0.8913**	**0.8913**	**8.7000e-004**	**0.0000**	**0.9130**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Coral Avenue Subdivision Project

San Luis Obispo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	6.00	Dwelling Unit	1.95	10,800.00	17

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.2	**Precipitation Freq (Days)**	44
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Land Use Change -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.4320	1.9447	1.5924	2.6300e-003	0.0201	0.1102	0.1303	9.2100e-003	0.1058	0.1150	0.0000	221.2643	221.2643	0.0442	0.0000	222.3685
Maximum	**0.4320**	**1.9447**	**1.5924**	**2.6300e-003**	**0.0201**	**0.1102**	**0.1303**	**9.2100e-003**	**0.1058**	**0.1150**	**0.0000**	**221.2643**	**221.2643**	**0.0442**	**0.0000**	**222.3685**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.4320	1.9447	1.5924	2.6300e-003	0.0201	0.1102	0.1303	9.2100e-003	0.1058	0.1150	0.0000	221.2641	221.2641	0.0442	0.0000	222.3682
Maximum	**0.4320**	**1.9447**	**1.5924**	**2.6300e-003**	**0.0201**	**0.1102**	**0.1303**	**9.2100e-003**	**0.1058**	**0.1150**	**0.0000**	**221.2641**	**221.2641**	**0.0442**	**0.0000**	**222.3682**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2019**	**3-31-2019**	0.6584	0.6584
2	**4-1-2019**	**6-30-2019**	0.5976	0.5976
3	**7-1-2019**	**9-30-2019**	0.6042	0.6042
		Highest	0.6584	0.6584

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0616	9.5000e-004	0.0820	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1334	0.1334	1.3000e-004	0.0000	0.1367
Energy	9.4000e-004	8.0400e-003	3.4200e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	23.4280	23.4280	8.2000e-004	3.0000e-004	23.5386
Mobile	0.0207	0.0901	0.2426	6.3000e-004	0.0542	7.9000e-004	0.0549	0.0145	7.4000e-004	0.0153	0.0000	57.4462	57.4462	2.4700e-003	0.0000	57.5080
Waste						0.0000	0.0000		0.0000	0.0000	1.4149	0.0000	1.4149	0.0836	0.0000	3.5052
Water						0.0000	0.0000		0.0000	0.0000	0.1240	0.8663	0.9903	0.0128	3.1000e-004	1.4018
Total	**0.0832**	**0.0991**	**0.3280**	**6.8000e-004**	**0.0542**	**1.8900e-003**	**0.0560**	**0.0145**	**1.8400e-003**	**0.0164**	**1.5389**	**81.8739**	**83.4127**	**0.0998**	**6.1000e-004**	**86.0903**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0616	9.5000e-004	0.0820	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1334	0.1334	1.3000e-004	0.0000	0.1367
Energy	9.4000e-004	8.0400e-003	3.4200e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	23.4280	23.4280	8.2000e-004	3.0000e-004	23.5386
Mobile	0.0207	0.0901	0.2426	6.3000e-004	0.0542	7.9000e-004	0.0549	0.0145	7.4000e-004	0.0153	0.0000	57.4462	57.4462	2.4700e-003	0.0000	57.5080
Waste						0.0000	0.0000		0.0000	0.0000	1.4149	0.0000	1.4149	0.0836	0.0000	3.5052
Water						0.0000	0.0000		0.0000	0.0000	0.1240	0.8663	0.9903	0.0128	3.1000e-004	1.4018
Total	**0.0832**	**0.0991**	**0.3280**	**6.8000e-004**	**0.0542**	**1.8900e-003**	**0.0560**	**0.0145**	**1.8400e-003**	**0.0164**	**1.5389**	**81.8739**	**83.4127**	**0.0998**	**6.1000e-004**	**86.0903**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/28/2019	5	20	
2	Site Preparation	Site Preparation	1/29/2019	1/30/2019	5	2	
3	Grading	Grading	1/31/2019	2/5/2019	5	4	
4	Building Construction	Building Construction	2/6/2019	11/12/2019	5	200	
5	Paving	Paving	11/13/2019	11/26/2019	5	10	
6	Architectural Coating	Architectural Coating	11/27/2019	12/10/2019	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 21,870; Residential Outdoor: 7,290; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	2.00	1.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0230	0.2268	0.1489	2.4000e-004		0.0129	0.0129		0.0120	0.0120	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524
Total	**0.0230**	**0.2268**	**0.1489**	**2.4000e-004**		**0.0129**	**0.0129**		**0.0120**	**0.0120**	**0.0000**	**21.4161**	**21.4161**	**5.4500e-003**	**0.0000**	**21.5524**

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	5.9000e-004	5.0800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0805	1.0805	4.0000e-005	0.0000	1.0815
Total	**6.2000e-004**	**5.9000e-004**	**5.0800e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0805**	**1.0805**	**4.0000e-005**	**0.0000**	**1.0815**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0230	0.2268	0.1489	2.4000e-004		0.0129	0.0129		0.0120	0.0120	0.0000	21.4161	21.4161	5.4500e-003	0.0000	21.5524
Total	**0.0230**	**0.2268**	**0.1489**	**2.4000e-004**		**0.0129**	**0.0129**		**0.0120**	**0.0120**	**0.0000**	**21.4161**	**21.4161**	**5.4500e-003**	**0.0000**	**21.5524**

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	5.9000e-004	5.0800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0805	1.0805	4.0000e-005	0.0000	1.0815
Total	**6.2000e-004**	**5.9000e-004**	**5.0800e-003**	**1.0000e-005**	**1.2500e-003**	**1.0000e-005**	**1.2600e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0805**	**1.0805**	**4.0000e-005**	**0.0000**	**1.0815**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0195	7.8900e-003	2.0000e-005		8.8000e-004	8.8000e-004		8.1000e-004	8.1000e-004	0.0000	1.5467	1.5467	4.9000e-004	0.0000	1.5589
Total	**1.7100e-003**	**0.0195**	**7.8900e-003**	**2.0000e-005**	**5.8000e-003**	**8.8000e-004**	**6.6800e-003**	**2.9500e-003**	**8.1000e-004**	**3.7600e-003**	**0.0000**	**1.5467**	**1.5467**	**4.9000e-004**	**0.0000**	**1.5589**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	4.0000e-005	3.1000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0665	0.0665	0.0000	0.0000	0.0666
Total	**4.0000e-005**	**4.0000e-005**	**3.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0665**	**0.0665**	**0.0000**	**0.0000**	**0.0666**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0195	7.8900e-003	2.0000e-005		8.8000e-004	8.8000e-004		8.1000e-004	8.1000e-004	0.0000	1.5467	1.5467	4.9000e-004	0.0000	1.5589
Total	**1.7100e-003**	**0.0195**	**7.8900e-003**	**2.0000e-005**	**5.8000e-003**	**8.8000e-004**	**6.6800e-003**	**2.9500e-003**	**8.1000e-004**	**3.7600e-003**	**0.0000**	**1.5467**	**1.5467**	**4.9000e-004**	**0.0000**	**1.5589**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	4.0000e-005	3.1000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0665	0.0665	0.0000	0.0000	0.0666
Total	**4.0000e-005**	**4.0000e-005**	**3.1000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0665**	**0.0665**	**0.0000**	**0.0000**	**0.0666**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8400e-003	0.0321	0.0132	3.0000e-005		1.4700e-003	1.4700e-003		1.3600e-003	1.3600e-003	0.0000	2.5336	2.5336	8.0000e-004	0.0000	2.5536
Total	**2.8400e-003**	**0.0321**	**0.0132**	**3.0000e-005**	**9.8300e-003**	**1.4700e-003**	**0.0113**	**5.0500e-003**	**1.3600e-003**	**6.4100e-003**	**0.0000**	**2.5336**	**2.5336**	**8.0000e-004**	**0.0000**	**2.5536**

3.4 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	7.0000e-005	6.3000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1330	0.1330	0.0000	0.0000	0.1331
Total	**8.0000e-005**	**7.0000e-005**	**6.3000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1330**	**0.1330**	**0.0000**	**0.0000**	**0.1331**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8400e-003	0.0321	0.0132	3.0000e-005		1.4700e-003	1.4700e-003		1.3600e-003	1.3600e-003	0.0000	2.5336	2.5336	8.0000e-004	0.0000	2.5536
Total	**2.8400e-003**	**0.0321**	**0.0132**	**3.0000e-005**	**9.8300e-003**	**1.4700e-003**	**0.0113**	**5.0500e-003**	**1.3600e-003**	**6.4100e-003**	**0.0000**	**2.5336**	**2.5336**	**8.0000e-004**	**0.0000**	**2.5536**

3.4 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	7.0000e-005	6.3000e-004	0.0000	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1330	0.1330	0.0000	0.0000	0.1331
Total	**8.0000e-005**	**7.0000e-005**	**6.3000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1330**	**0.1330**	**0.0000**	**0.0000**	**0.1331**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2272	1.5980	1.3487	2.2000e-003		0.0916	0.0916		0.0885	0.0885	0.0000	183.0719	183.0719	0.0352	0.0000	183.9518
Total	**0.2272**	**1.5980**	**1.3487**	**2.2000e-003**		**0.0916**	**0.0916**		**0.0885**	**0.0885**	**0.0000**	**183.0719**	**183.0719**	**0.0352**	**0.0000**	**183.9518**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7000e-004	0.0114	3.5800e-003	2.0000e-005	4.5000e-004	9.0000e-005	5.5000e-004	1.3000e-004	9.0000e-005	2.2000e-004	0.0000	1.9265	1.9265	1.2000e-004	0.0000	1.9296
Worker	9.6000e-004	9.0000e-004	7.8200e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.6623	1.6623	6.0000e-005	0.0000	1.6638
Total	**1.4300e-003**	**0.0123**	**0.0114**	**4.0000e-005**	**2.3800e-003**	**1.0000e-004**	**2.4900e-003**	**6.4000e-004**	**1.0000e-004**	**7.4000e-004**	**0.0000**	**3.5888**	**3.5888**	**1.8000e-004**	**0.0000**	**3.5934**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2272	1.5980	1.3487	2.2000e-003		0.0916	0.0916		0.0885	0.0885	0.0000	183.0717	183.0717	0.0352	0.0000	183.9515
Total	**0.2272**	**1.5980**	**1.3487**	**2.2000e-003**		**0.0916**	**0.0916**		**0.0885**	**0.0885**	**0.0000**	**183.0717**	**183.0717**	**0.0352**	**0.0000**	**183.9515**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7000e-004	0.0114	3.5800e-003	2.0000e-005	4.5000e-004	9.0000e-005	5.5000e-004	1.3000e-004	9.0000e-005	2.2000e-004	0.0000	1.9265	1.9265	1.2000e-004	0.0000	1.9296
Worker	9.6000e-004	9.0000e-004	7.8200e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.6623	1.6623	6.0000e-005	0.0000	1.6638
Total	**1.4300e-003**	**0.0123**	**0.0114**	**4.0000e-005**	**2.3800e-003**	**1.0000e-004**	**2.4900e-003**	**6.4000e-004**	**1.0000e-004**	**7.4000e-004**	**0.0000**	**3.5888**	**3.5888**	**1.8000e-004**	**0.0000**	**3.5934**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5200e-003	0.0459	0.0445	7.0000e-005		2.6100e-003	2.6100e-003		2.4100e-003	2.4100e-003	0.0000	6.0105	6.0105	1.8700e-003	0.0000	6.0572
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5200e-003**	**0.0459**	**0.0445**	**7.0000e-005**		**2.6100e-003**	**2.6100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**6.0105**	**6.0105**	**1.8700e-003**	**0.0000**	**6.0572**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.9000e-004	2.5400e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5402	0.5402	2.0000e-005	0.0000	0.5407
Total	**3.1000e-004**	**2.9000e-004**	**2.5400e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5402**	**0.5402**	**2.0000e-005**	**0.0000**	**0.5407**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5200e-003	0.0459	0.0445	7.0000e-005		2.6100e-003	2.6100e-003		2.4100e-003	2.4100e-003	0.0000	6.0105	6.0105	1.8700e-003	0.0000	6.0572
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5200e-003**	**0.0459**	**0.0445**	**7.0000e-005**		**2.6100e-003**	**2.6100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**6.0105**	**6.0105**	**1.8700e-003**	**0.0000**	**6.0572**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.9000e-004	2.5400e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5402	0.5402	2.0000e-005	0.0000	0.5407
Total	**3.1000e-004**	**2.9000e-004**	**2.5400e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5402**	**0.5402**	**2.0000e-005**	**0.0000**	**0.5407**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1690					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	9.1800e-003	9.2100e-003	1.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	1.2766	1.2766	1.1000e-004	0.0000	1.2793
Total	**0.1703**	**9.1800e-003**	**9.2100e-003**	**1.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.1000e-004**	**0.0000**	**1.2793**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1690					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	9.1800e-003	9.2100e-003	1.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	1.2766	1.2766	1.1000e-004	0.0000	1.2793
Total	**0.1703**	**9.1800e-003**	**9.2100e-003**	**1.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.1000e-004**	**0.0000**	**1.2793**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0207	0.0901	0.2426	6.3000e-004	0.0542	7.9000e-004	0.0549	0.0145	7.4000e-004	0.0153	0.0000	57.4462	57.4462	2.4700e-003	0.0000	57.5080
Unmitigated	0.0207	0.0901	0.2426	6.3000e-004	0.0542	7.9000e-004	0.0549	0.0145	7.4000e-004	0.0153	0.0000	57.4462	57.4462	2.4700e-003	0.0000	57.5080

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	57.12	59.46	51.72	144,063	144,063
Total	57.12	59.46	51.72	144,063	144,063

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.559162	0.032279	0.198583	0.128083	0.030808	0.007362	0.013004	0.019140	0.002385	0.001267	0.005421	0.000811	0.001695

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.1218	14.1218	6.4000e-004	1.3000e-004	14.1772
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.1218	14.1218	6.4000e-004	1.3000e-004	14.1772
NaturalGas Mitigated	9.4000e-004	8.0400e-003	3.4200e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3061	9.3061	1.8000e-004	1.7000e-004	9.3615
NaturalGas Unmitigated	9.4000e-004	8.0400e-003	3.4200e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3061	9.3061	1.8000e-004	1.7000e-004	9.3615

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	174391	9.4000e-004	8.0400e-003	3.4200e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3061	9.3061	1.8000e-004	1.7000e-004	9.3615
Total		**9.4000e-004**	**8.0400e-003**	**3.4200e-003**	**5.0000e-005**		**6.5000e-004**	**6.5000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**9.3061**	**9.3061**	**1.8000e-004**	**1.7000e-004**	**9.3615**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	174391	9.4000e-004	8.0400e-003	3.4200e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3061	9.3061	1.8000e-004	1.7000e-004	9.3615
Total		**9.4000e-004**	**8.0400e-003**	**3.4200e-003**	**5.0000e-005**		**6.5000e-004**	**6.5000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**9.3061**	**9.3061**	**1.8000e-004**	**1.7000e-004**	**9.3615**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	48543.4	14.1218	6.4000e-004	1.3000e-004	14.1772
Total		**14.1218**	**6.4000e-004**	**1.3000e-004**	**14.1772**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	48543.4	14.1218	6.4000e-004	1.3000e-004	14.1772
Total		**14.1218**	**6.4000e-004**	**1.3000e-004**	**14.1772**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0616	9.5000e-004	0.0820	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1334	0.1334	1.3000e-004	0.0000	0.1367
Unmitigated	0.0616	9.5000e-004	0.0820	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1334	0.1334	1.3000e-004	0.0000	0.1367

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0422					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-003	9.5000e-004	0.0820	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1334	0.1334	1.3000e-004	0.0000	0.1367
Total	**0.0616**	**9.5000e-004**	**0.0820**	**0.0000**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**	**0.0000**	**0.1334**	**0.1334**	**1.3000e-004**	**0.0000**	**0.1367**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0169					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0422					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5000e-003	9.5000e-004	0.0820	0.0000		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	0.1334	0.1334	1.3000e-004	0.0000	0.1367
Total	**0.0616**	**9.5000e-004**	**0.0820**	**0.0000**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**	**0.0000**	**0.1334**	**0.1334**	**1.3000e-004**	**0.0000**	**0.1367**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.9903	0.0128	3.1000e-004	1.4018
Unmitigated	0.9903	0.0128	3.1000e-004	1.4018

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.390924 / 0.246452	0.9903	0.0128	3.1000e-004	1.4018
Total		**0.9903**	**0.0128**	**3.1000e-004**	**1.4018**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.390924 / 0.246452	0.9903	0.0128	3.1000e-004	1.4018
Total		**0.9903**	**0.0128**	**3.1000e-004**	**1.4018**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.4149	0.0836	0.0000	3.5052
Unmitigated	1.4149	0.0836	0.0000	3.5052

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	6.97	1.4149	0.0836	0.0000	3.5052
Total		**1.4149**	**0.0836**	**0.0000**	**3.5052**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	6.97	1.4149	0.0836	0.0000	3.5052
Total		**1.4149**	**0.0836**	**0.0000**	**3.5052**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Emission Worksheet

N_2O Mobile Emissions Morro Bay Coral Ave. Residential

From CalEEMod v.2016.3.2 Vehicle Fleet Mix Output:

Annual VMT: 144,063

Vehicle Type	Percent Type	CH_4 Emission Factor (g/mile)*	CH_4 Emissions (g/mile)**	N_2O Emission Factor (g/mile)*	N_2O Emissions (g/mile)**
Light Auto	55.9%	0.04	0.02236	0.04	0.02236
Light Truck < 3750 lbs	3.2%	0.05	0.0016	0.06	0.00192
Light Truck 3751-5750 lbs	19.9%	0.05	0.00995	0.06	0.01194
Med Truck 5751-8500 lbs	12.8%	0.12	0.01536	0.2	0.0256
Lite-Heavy Truck 8501-10,000 lbs	3.1%	0.12	0.00372	0.2	0.0062
Lite-Heavy Truck 10,001-14,000 lbs	0.7%	0.09	0.00063	0.125	0.000875
Med-Heavy Truck 14,001-33,000 lbs	1.3%	0.06	0.00078	0.05	0.00065
Heavy-Heavy Truck 33,001-60,000 lbs	1.9%	0.06	0.00114	0.05	0.00095
Other Bus	0.2%	0.06	0.00012	0.05	0.0001
Urban Bus	0.2%	0.06	0.00012	0.05	0.0001
Motorcycle	0.5%	0.09	0.00045	0.01	0.00005
School Bus	0.1%	0.06	0.00006	0.05	0.00005
Motor Home	0.2%	0.09	0.00018	0.125	0.00025
Total	**100.0%**		**0.05647**		**0.071045**

Total Emissions (metric tons) =
Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO_2e) Units based on Global Warming Potential (GWP)

CH_4	21	GWP
N_2O	310	GWP
1 ton (short, US) =	0.90718474	metric ton

Annual Mobile Emissions:

	Total Emissions		Total CO2e units	
N_2O Emissions:	0.0102	metric tons N_2O	**3.17**	metric tons CO_2e
		Project Total:	***3.17***	***metric tons CO_2e***

References

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).
in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009
Assume Model year 2000-present, gasoline fueled.
** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009
*** CalEEMod v.2016.3.2 results for mobile sources.

Appendix B

Sage Biological Addendum

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September 8, 2017

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SUBJECT: BIOLOGICAL RESOURCES ADDENDUM FOR THE CITY OF MORRO BAY TRACT NO. 2859 PROJECT SITE (APN NO. 065-386-015)

Dear Mr. Watson:

Sage Institute, Inc. (SII) is pleased to submit this Biological Resources Addendum (BRA) for the Tract No. 2859 project site in the City of Morro Bay, California (APN No. 065-386-015). This BRA is based on the 1991 Draft and Final Environmental Impact Report for the Cloisters Residential Subdivision Project (EIR) that are hereby incorporated by reference. The purpose of this BRA is to establish existing conditions of the Tract No. 2859 project site in relationship to the biological resources evaluation in the EIR, and to evaluate the current potential for any direct or indirect potentially significant impacts on biological or wetland resources, or adverse effects on any rare, threatened, or endangered plant or wildlife species (special-status species). This report is intended to support the environmental review documentation process for the City of Morro Bay.

1. METHODS

SII Principal Ecologist David Wolff reviewed the EIR ecological/biological resources section and May 15, 2007 monarch butterfly habitat survey report you provided. A current California Natural Diversity Data Base (CNDDB) query focused along the coast from Cayucos to Los Osos provided a list and mapped locations of special-status plant and wildlife species, as well as natural communities of special concern that have been recorded in the vicinity of the project site (See attached Figure 1). The CNDDB records helped focus the field survey efforts and evaluation of potential project effects on specific species or habitats, but are not intended to be definitive in terms of presence/absence of special-status biological resources. Mr. Wolff conducted a field survey of the project site on August 22, 2017 to document existing conditions in terms of habitats and plant species observable at the time of the site visit. The survey data collected on plant and wildlife species, the evaluation and analysis of biological resources, and conclusions presented in this BRA are based on the methods and field reconnaissance conducted over the project site as described above.

2. EXISTING CONDITIONS

The Tract 2859 project site is essentially an infill 0.99 acre site bordered by State Highway 1 on the east, San Jacinto Street and residential development on the north, Coral Avenue and residential development on the west, and residential development directly abutting to the south (see Figure 2). The site supports a ruderal non-native annual grassland cover with two rows of blue gum eucalyptus trees (*Eucalyptus globulus*) that appears to be the site condition at least as far back 1994 from review of available Google Earth imagery. Figure 3 provides a set of representative photographs from the SII field survey. In

addition, the 1994 aerial imagery of the predevelopment Cloisters project signatures of established dune vegetation and active dunes that are clearly not on the Tract 2859 site suggesting existing conditions as described below have been established since at least 1994. A drainage ditch emanating from three culverts in the northeast corner draining the urbanized north Morro Bay area runs from north to south along the eastern border of the site. The drainage ditch continues south connecting to the created pond feature in the Cloisters project. Again, the ditch carrying the urban drainage along the eastern property edge appears to have been in place at least as far back as 1994. The ditch was dry with a cover of annual grasses during the SII field survey. There is no apparent natural creek flowing to that location and there is no other drainage pattern through the site.

The vegetative ground cover of the Tract 2859 site throughout and under the eucalyptus rows is a non-native ruderal annual grassland habitat composed predominantly of oats (*Avena* sp.), foxtail barley (*Hordeum murinum leporinum*), ryegrass (*Lolium perenne*), bur clover (*Medicago polymorpha*), field bindweed (*Convolvulus arevensis*), English plantain (*Plantago lanceolata*), buckhorn plantain (*Plantago coronopus*), and black mustard (*Brassica nigra*). There are also widely scattered Australian saltbush (*Atriplex semibaccata*), saltgrass (*Distichlis spicata*), scarlet pimpernel (*Lysimachia arvensis*), and bristly ox-tongue (*Helminthotheca echioides*). These are all non-native invasive weedy species and there is no evidence of wetland vegetation under either the Federal or State definitions.

There was abundant gopher evidence throughout the site (mounds of dirt) that exposed a loamy soil with small uniform gravel suggesting there is not a native soil profile. More importantly, there was no surface evidence of sands or sandy soils that would support dune plant or wildlife species. The site was very level and uniform demonstrating that there is no dune type topography on the site as well.

3. BIOLOGICAL RESOURCES EVALUATION

The EIR identified several key potentially significant biological and wetland resources for the overall Cloisters project and provided mitigation measures to reduce impacts to a less than significant level. These key biological resources issues are summarized below along with any applicability to the Tract 2859 project site.

- **Wetlands –** The EIR had lengthy discussion of Federal waters of the U.S., and CDFW 1600 and Coastal Act waters of the State that including drainages, dune slack ponds, and willow thickets (willows in uplands, dunes, drainages). The EIR had Federal jurisdictional wetlands mapped on Figure 3.10-3 that showed the Tract 2859 site without any mapped wetland habitats. Based on the SII field survey we have affirmed that there are no wetlands under either current federal or state jurisdictional definitions on the Tract 2859 site.

  The EIR did not address the Federal threatened California red-legged frog (*Rana draytonii*; CRLF) that is a highly aquatic species. There are CNDDB recorded occurrences of the CRLF in the coastal drainages around Morro Bay (Figure 1). As stated above, the site is ruderal uplands with no wetland or aquatic habitat present. The drainage ditch is likely ephemeral from urban runoff without perennial aquatic habitat needed by the CRLF. Further, the ditch runs along the highway and behind residential development with no upstream creek habitat. As such, there is no expectation that the CRLF would occur on the Tract 2859 project site.

- **Environmentally Sensitive Habitat Areas (ESHA) –** The EIR presented mapped ESHA that mostly included the active coastal dunes, dune scrub, dune slack, wetlands, willow thickets, and special-status species habitat that were mapped and proposed on Figure 3.10-7. No existing or

proposed ESHA was mapped on the Tract 2859. Based on the SII field survey there are no habitats or conditions that would meet the ESHA definition and/or criteria on the Tract 2859 project site.

- **Active Dune/Dune Scrub Habitats –** The EIR discussed special-status species such as the Morro Bay blue butterfly and its host plant the dune lupine (*Lupinus chamissonis*), the western snowy plover, and globose dune beetle associated with the active and stable dune habitats mapped within the Cloisters project area. As discussed above, the past and current conditions of the biological resources provide the evidence that the site does not support the dune habitat, dune lupine, or sandy substrate/topography to support any of the dune associated plant or wildlife species discussed in the EIR.

  The EIR did not address the Federal Endangered morro shoulderband snail (*Helminthoglypta walkeriana)* known from its restrictive range around Morro Bay and found only in pure sandy soils with coastal dune and coastal scrub vegetation. As described above, the loamy/gravelly soils on the Tract 2859 site would not support the Morro shoulderband snail.

- **Monarch Butterfly Winter Roosts –** The EIR discussed the monarch butterfly and suggested the two eucalyptus rows on the Tract 2859 site were "appropriate" roosting habitat without any direct observations noted of a winter roost aggregation of monarch butterflies. The 2007 monarch butterfly winter roost survey provided extensive data collection and analysis of the onsite eucalyptus rows. The 2007 study had negative findings as a winter roost as well as being deemed unsuitable based on a 13 criteria analysis. The current CNDDB query shows the known monarch butterfly roost sites in the region but does not have a record on the Tract 2859 site. The CNDDB has abundant data on observed winter roost sites in the region from a study that occurred over almost a 10-year period in the 1980's and 1990's. Given these CNDDB records around the site, it can be suggested the Trach 2859 eucalyptus rows were viewed by this study with no record of a winter roost. As such, the onsite eucalyptus rows should not be considered monarch butterfly fall or winter roost habitat.

- **CNDDB Recorded Occurrences –** Figure 1 provides a list and mapped locations of CNDDB recorded observations of special-status species. The majority of these species are associated with the coastal and dune habitats with sandy substrate, wetlands and aquatic habitats, or generally intact native plant communities on the inland hills. Based on the existing conditions of the Tract 2859 site supporting a ruderal non-native annual grassland habitat lacking sandy soils, dune topography, or other native habitat elements, it is not expected to support any of the special-status species recorded in the CNDDB as shown on Figure 1.

- **Nesting Birds –** As with all undeveloped project sites, there is a potential for nesting birds to use the eucalyptus and/or annual grassland. Nesting birds are protected by Sections 3503 and 3503.5 (raptors specifically) of the Fish and Game Code of California and the Migratory Bird Treaty Act. No large stick nests for raptors were observed in any of the eucalyptus trees during the SII survey or other nesting birds. Although the survey was conducted at almost the end of the nesting season for most birds. In general the eucalyptus trees have an open structure not conducive to secretive bird nesting but the potential for nesting birds still remains.

4. PROJECT IMPACTS AND RECOMMENDED MITIGATION

The Tract 2859 project site supports a ruderal and weedy non-native annual grassland ground cover with two rows of eucalyptus essentially surrounded by urbanization. As such, conversion of the site to residential development, including the removal of the eucalyptus trees would not be considered a

significant impact on biological resources. While the eucalyptus do provide habitat structure to the site, they are non-native and the oils in the bark and leaf litter tend to preclude the development of a native plant understory. However, there still remains the possibility of nesting birds including raptors that are protected by regulations where avoidance of impacts is typically the best approach. The following mitigation measure is recommended to ensure that potentially significant impacts on nesting birds is reduced to a less than significant level.

> ***MM BIO-1:*** *Vegetation removal and initial site disturbance for any project elements shall be conducted between September 1st and January 31st outside of the nesting season for birds. If vegetation removal is planned for the bird nesting season (February 1st to August 31st), then preconstruction nesting bird surveys shall be required to determine if any active nests would be impacted by project construction. If no active nests are found, then no further mitigation shall be required.*
>
> *If any active nests are found that would be impacted by construction, then the nest sites shall be avoided with the establishment of a non-disturbance buffer zone around active nests as determined by a qualified biologist. Nest sites shall be avoided and protected with the non-disturbance buffer zone until the adults and young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist. As such, avoiding disturbance or take of an active nest would reduce potential impacts on nesting birds to a less-than-significant level.*

5. SUMMARY

Based on the findings described above establishing the existing conditions of biological resources within the Tract 2859 project site and incorporation of the recommended mitigation measures, implementation of the proposed project would not result in any substantial adverse effects on biological, botanical, wetland habitat resources. Therefore, with mitigation measures incorporated into the project, direct and indirect project impacts on biological resources would be considered to be less than significant under CEQA.

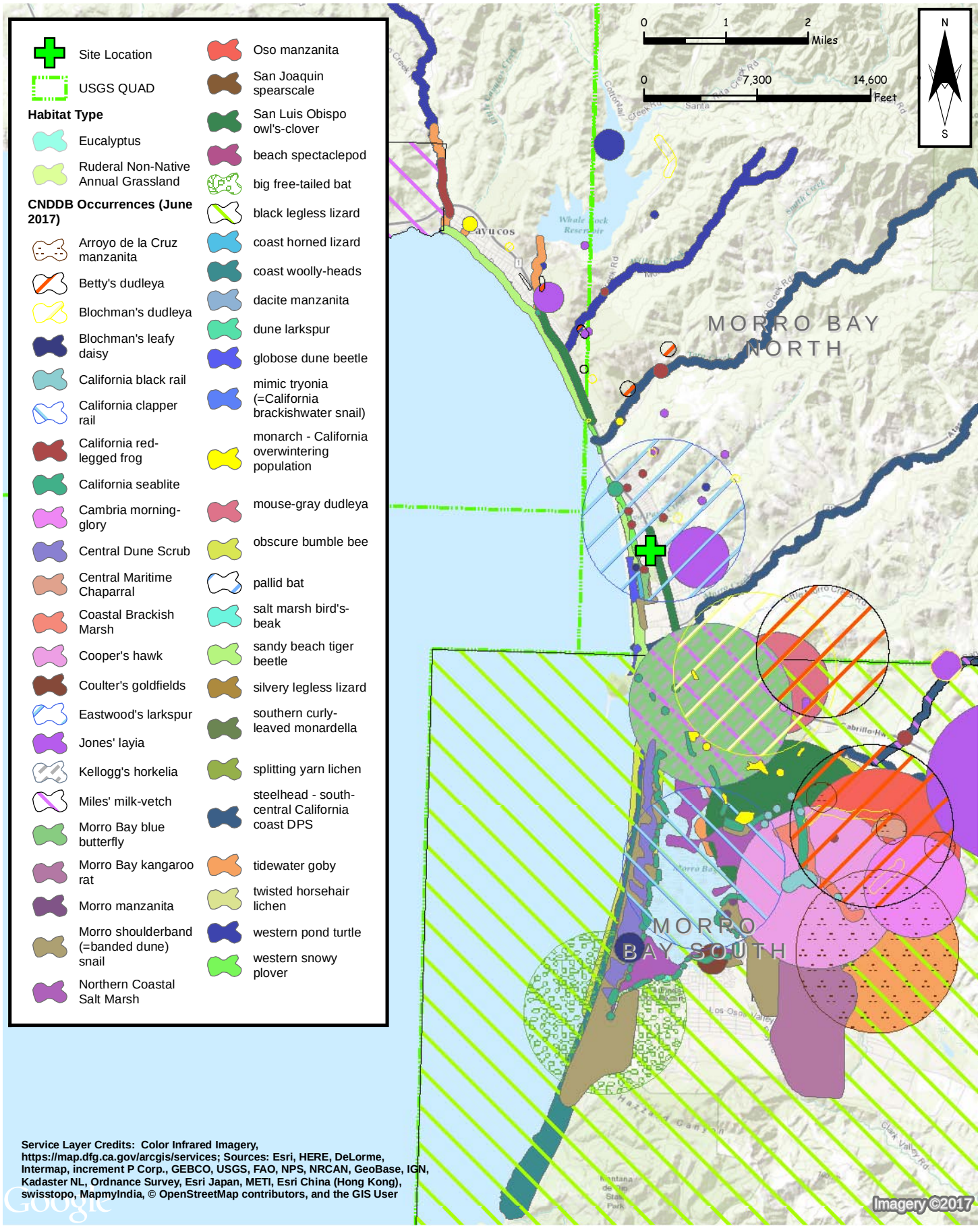
Thank you very much for considering SII for environmental consulting services.

Very truly yours,

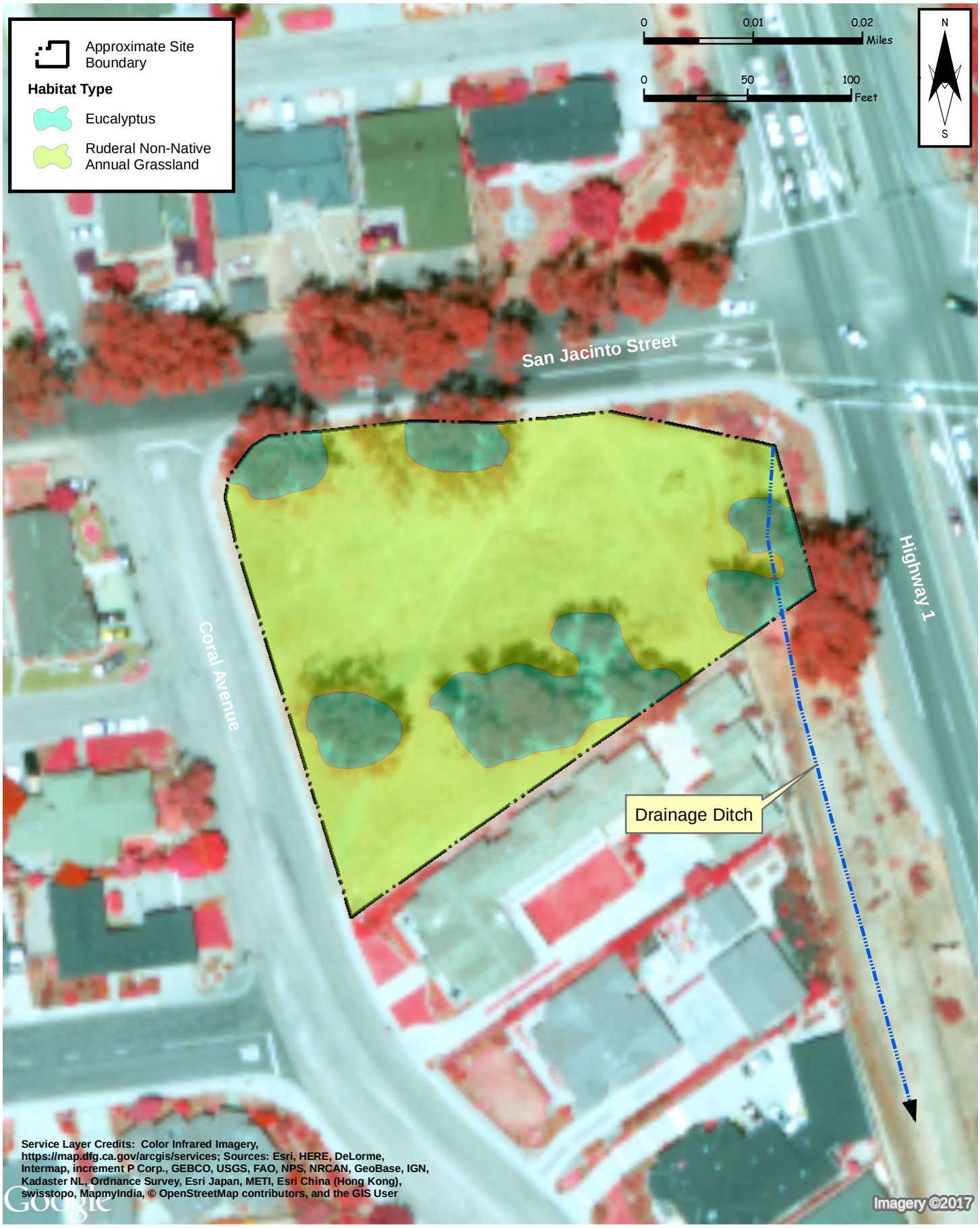
David K. Wolff, Principal Ecologist

ATTACHMENTS

Figure 1 – Regional Location and CNDDB Occurrences Map
Figure 2 – Habitat Map
Figure 3 – Representative Photographs



sage institute updated 08/30/2017	Tract No. 2859, City of Morro Bay	**Figure 1**
	Biological Resources Addendum	Regional Location / CNDDB



sage institute inc updated 08/30/2017	Tract No. 2859, City of Morro Bay	**Figure 2**
	Biological Resources Addendum	Habitat Map

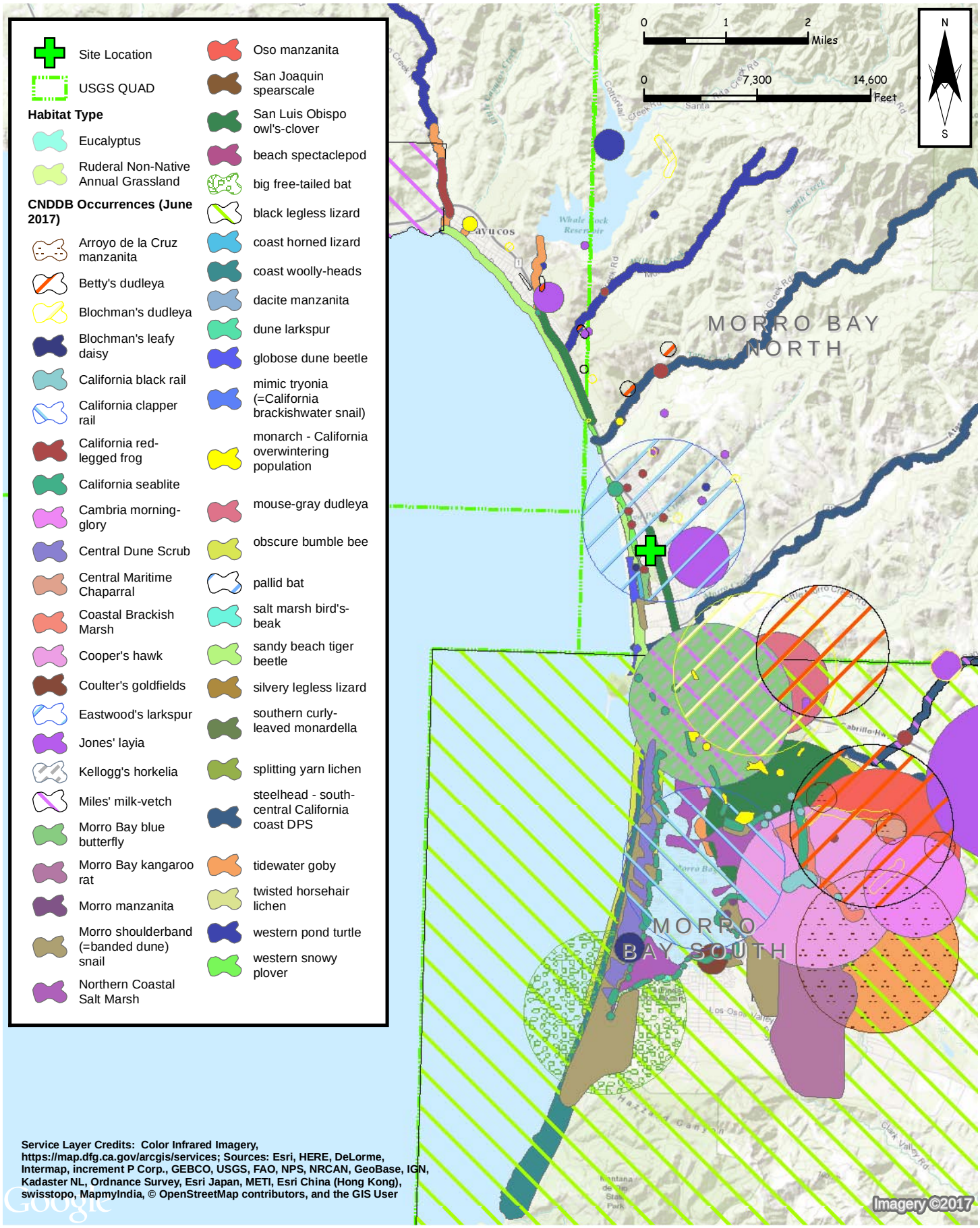
Photo 1 – View east along San Jacinto Road at ruderal grassland, eucalyptus rows, and residential development to the north and east. **8/22/2017**

Photo 2 – View south along Coral Avenue at ruderal grassland, eucalyptus row, and residential development to the east. **8/22/2017**

Photo 3 – View west across the site at ruderal grassland, eucalyptus rows, and residential development to the west. **8/22/2017**

Photo 4 – View north at drainage ditch running along Highway 1 at the eastern edge of the property. **8/22/2017**

FIGURE 3 – REPRESENTATIVE PHOTOGRAPHS



sage institute updated 08/30/2017	Tract No. 2859, City of Morro Bay	**Figure 1**
	Biological Resources Addendum	Regional Location / CNDDB

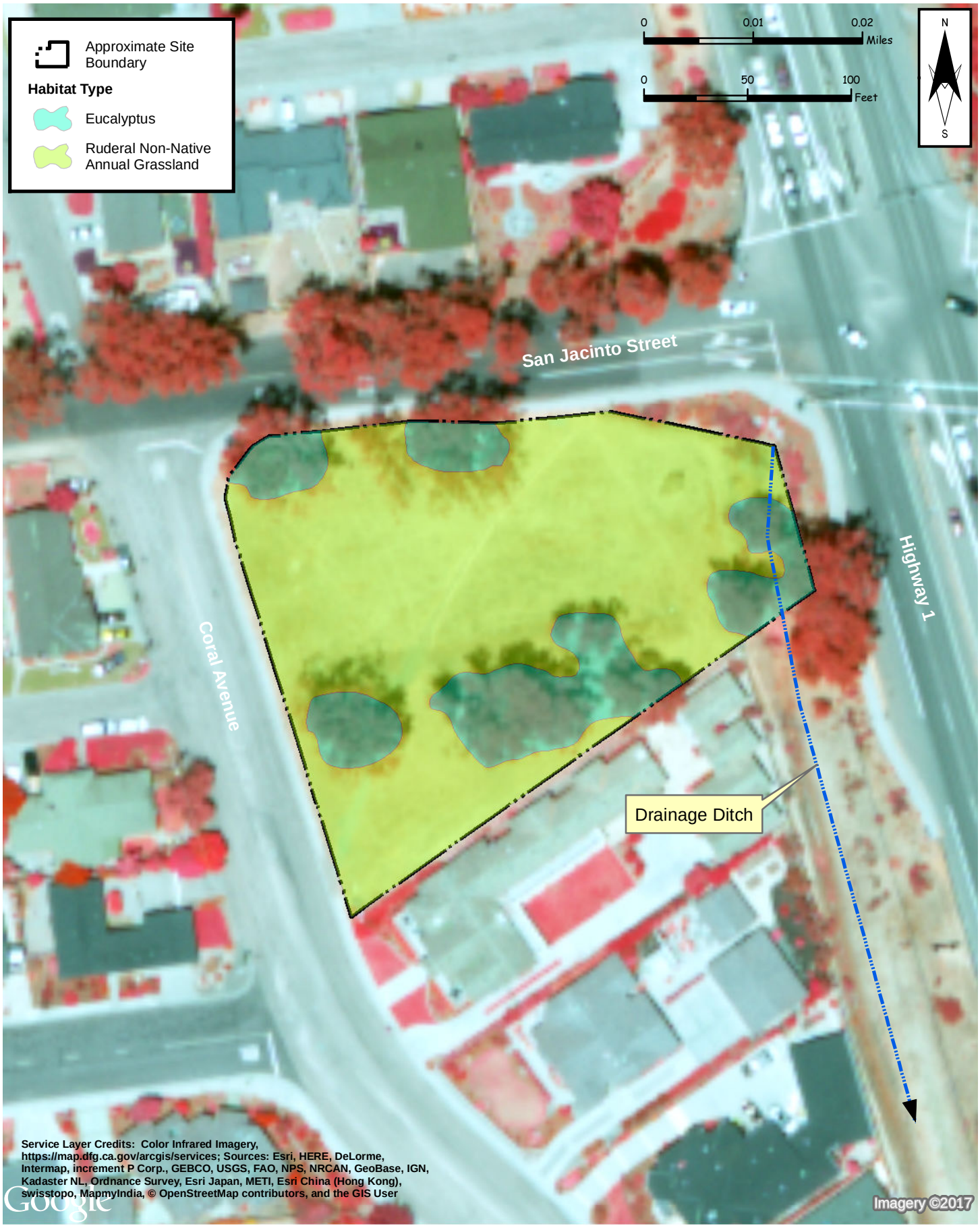


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Photo 4 – View north at drainage ditch running along Highway 1 at the eastern edge of the property. **8/22/2017**

FIGURE 3 – REPRESENTATIVE PHOTOGRAPHS

Appendix C

Certified Arborist Report

Certified Arborist Report and Mitigation/Enhancement for Proposed Subdivision at 2783 Coral Avenue Morro Bay, CA 93442

Prepared for:
Rob Shultz
City Attorney
City of Morro Bay
955 Shasta Ave.
Morro Bay, CA 93442

Prepared by:
ISA Certified Arborist
Robert F. Schreiber

Robert Schreiber

ISA Certified Arborist
#FL0314A

CERTIFIED ARBORIST REPORT

Rob Shultz
City Attorney
City of Morro Bay
955 Shasta Ave.
Morro Bay, CA 93442
772-6568

RE: *2783 Coral Avenue Morro Bay, CA 93442 CRR/GC/PD Zone district*

The site is currently vegetated with blue gum eucalyptus trees. Monarch butterfly habitat surveys conducted during the environmental review (S00-059/UP0-118/CP0-184) of the proposed subdivision determined the site is not an overnight roosting location and removal of these trees would not impact sensitive species.

As stated in the Staff Report for the project:

The California Coastal Commission (CCC) added a number of conditions to the approval of the Cloister's subdivision, some of which pertained to final landscape plans. Specifically, the CCC added condition of approval 4.b, which states the following.

No landscaping, including street trees, in the north residential cluster outside of the view corridor, shall when mature, exceed the maximum structure height of 14 feet in that cluster and no landscaping, including street trees, on any lot in the south residential cluster outside of the view corridor shall when mature, exceed the maximum allowed structure height on that lot.

The requested subdivision is most proximate to the northern cluster of the Cloisters and the proposed lots could potentially be considered a component of the northern cluster of the Cloister's subdivision. The eucalyptus trees on the project site are approximately 40 to 60 feet in height.

The trees onsite are growing in clumps, forcing the trees to grow phototropic towards the sun. The wind comes from the opposite

direction, forcing the trees to be either one-sided or grow at sharp angles to the ground. The trees are in declining age and have been pruned incorrectly from the bottom instead of reduction pruning to reduce weight of the branches and the possibility of wind throw knocking them over. At this point the trees are a hazard to individuals and property and should be replaced with more appropriate species to this environment.

It is the recommendation of this Certified Arborist to remove ***all*** on-site eucalyptus as these large trees are not appropriate for residential planting in this area. No sensitive species habitat is present in the trees onsite. In the event trees are not removed prior to start of construction, there is a high risk of inevitable failure as they continue to grow in their current state. Consultation with Caltrans should occur to request removal of the large eucalyptus tree located with the right-of-way for Highway 1.

As stated in the Environmental Determination for the project:

> Replacement trees for the six eucalyptus trees removed shall be replaced at a ratio of two five-gallon trees, or one 15-gallon tree for every tree removed. The replacement trees may be planted on the project site, on other privately held lands with the property owner's permission, or presented to the City to plant on public lands.

The conditions of approval do not specify that replacement trees shall be "in-k ind" or of the same species. Assuming removal of all eucalyptus trees, a total of 98 5-gallon trees or 64 15-gallon trees would be required to be planted onsite. Replacement trees as appropriate for the site shall be incorporated into a landscape plan for the project, and if planted prior to construction of residences, protected during construction to ensure their viability.

Required tree replacements to meet the mitigation requirements for the project do not all fit into the development plan for the site. If determined to be necessary by the City, additional replacement plantings shall be the responsibility of the contractor, to be

planted and/or funded by the contractor throughout the City in appropriate locations.

The landscape templates of adjacent properties include several successful complimentary species, with growth cycles appropriate for trees in developed areas. The landscape template shall include the following:

Melaleuca paper trees
Myoporum
Purple fountain grass and other grasses
Ginger trees
Butterfly bushes
Lavender
Small palms

Mitigation/Enhancement Program:

Due to the restricted soil space to building space, a modified landscape plan must be applied that does not fully replace all existing trees on site. The following is intended as a guideline for the contractor/landscape architect to implement in the field and augment as necessary as long as it remains consistent with the plant list and suggested placement.

In order to ensure proposed landscaping does not interfere with retaining wall improvements, infrastructure improvements, or residential construction, the following landscape template is suggested:

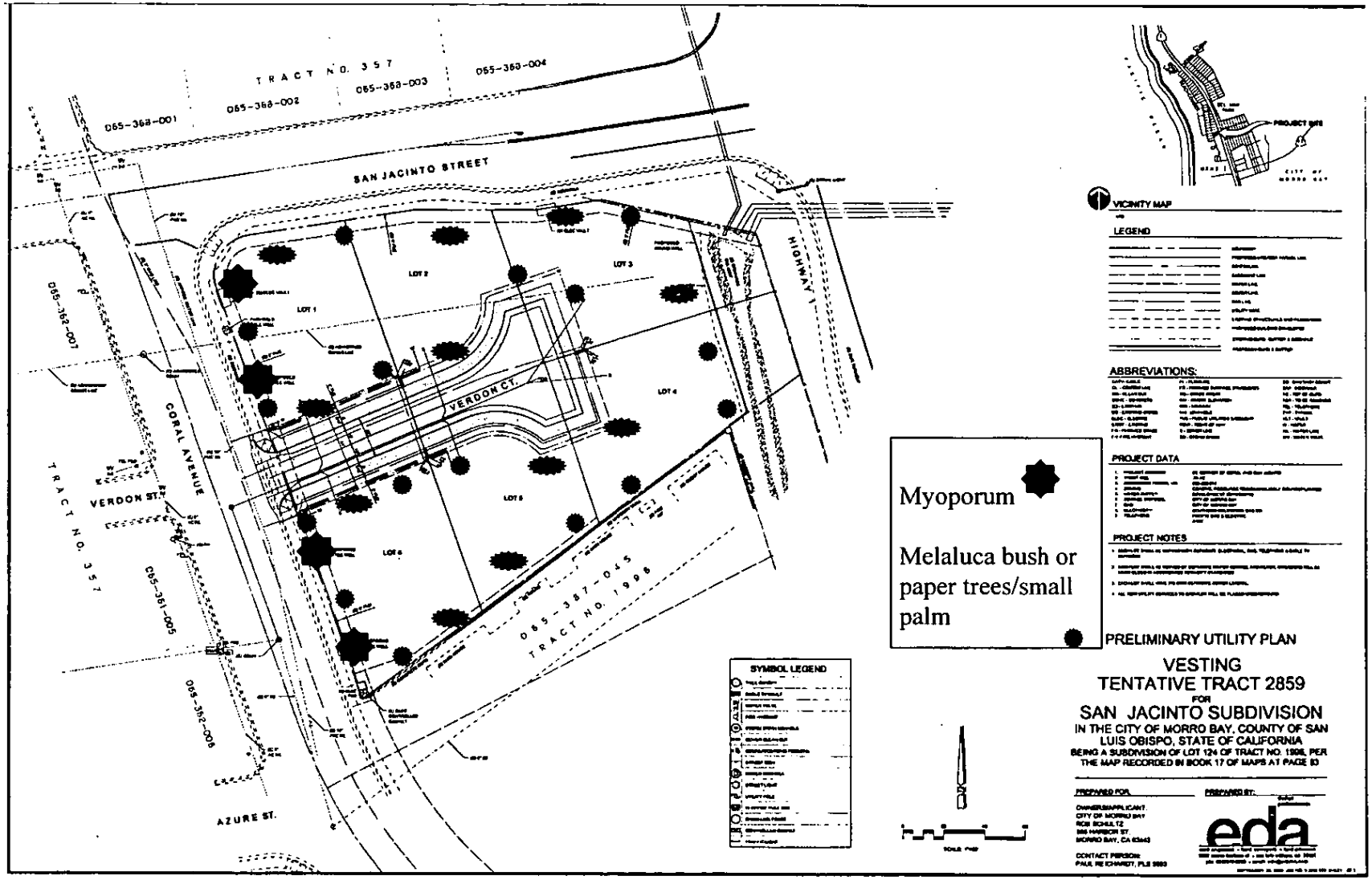
*Street frontage of Coral Avenue shall be vegetated with Myoporum, two per property frontage for a total of 4 trees.

*Street frontages of Coral Avenue and Verdon Court shall be vegetated with one Melaleuca paper tree and either small palms, purple melaleuca or smaller gingers

*Filler bushes shall consist of Melaleuca, small palms, and other shrubs and grasses as listed above to maintain consistency and incorporate the proposed development into the Cloisters project. Planting distances shall be consistent with adjacent Cloisters development planting.

*Additional vegetation on-site shall consist primarily of native species with turf areas to be minimized.

ISA Certified Arborist
Robert F. Schreiber
Robert Schreiber
ISA Certified Arborist
#FL0314A


TRACT NO. 357
065-368-001
065-368-002
065-368-003
065-368-004
SAN JACINTO STREET
HIGHWAY 1
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
VERDON CT.
VERDON ST.
CORAL AVENUE
AZURE ST.
TRACT NO. 357
065-362-007
065-361-005
065-362-006
065-387-045
TRACT NO. 1998
Myoporum
Melaluca bush or paper trees/small palm
SYMBOL LEGEND
VICINITY MAP
LEGEND
ABBREVIATIONS:
PROJECT DATA
PROJECT NOTES
PRELIMINARY UTILITY PLAN
VESTING
TENTATIVE TRACT 2859
FOR
SAN JACINTO SUBDIVISION
IN THE CITY OF MORRO BAY, COUNTY OF SAN LUIS OBISPO, STATE OF CALIFORNIA
BEING A SUBDIVISION OF LOT 124 OF TRACT NO. 1998, PER THE MAP RECORDED IN BOOK 17 OF MAPS AT PAGE 83
PREPARED FOR:
PREPARED BY:
OWNER/APPLICANT:
CITY OF MORRO BAY
ROB SCHULTZ
955 HARBOR ST.
MORRO BAY, CA 93442
CONTACT PERSON:
PAUL RECHWIDT, PLS 5893
eda

TERMS OF ASSIGNMENT

The following terms and conditions apply to all oral and written reports and correspondence pertaining to the consultations inspections and activities of Arbor First:

1. All property lines and ownership of property, trees, and landscape plants and fixtures are assumed to be accurate and reliable as presented and described to the consultant, either verbally or in writing. The consultant assumes no responsibility for verification of ownership or locations of property lines, or for results of any actions or recommendations based on inaccurate information.

2. It is assumed that any property referred to in any report or in compunction with any services performed by Arbor First, is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations, and that any titles and ownership to any property are assumed to be good and marketable. Any existing liens and encumbrances have been disregarded, and any and all property is appraised and/or assessed as though free and clear, under responsible ownership and competent management.

3. All reports and other correspondence are confidential and are the property of Arbor First and its named clients and their assigns or agents. Possession of this report or a copy thereof does not imply any right of publication or use for any purpose, without the express permission of the consultant and the client to whom the report was issued. Loss, removal or alteration of any part of a report invalidates the entire appraisal/evaluation.

4. The scope of any report or other correspondence is limited to the trees and conditions specifically mentioned in those reports and correspondence. Arbor First and the consultant assume no liability for the failure of trees or parts of trees, either inspected or otherwise. The consultant assumes no responsibility to report on the condition of any tree or landscape feature not specifically requested by the named client.

5. All inspections are limited to visual examination of accessible parts, without dissection, excavation, probing boring or other invasive procedures, unless otherwise noted in the report, and reflect the condition of those items and features at the time of inspection. No warrantee or guarantee is made, expressed or implied, that problems or deficiencies of the plants or the property will not occur in the future, from any cause. The consultant shall not be responsible for damages caused by any tree defects, and assumes no responsibility for the correction of defects or tree related problems.

6. The consultant shall not be required to provide further documentation give testimony, be deposed, or to attend court by reason of this appraisal/report unless subsequent contractual arrangements are made, including payment of additional fees for such services as described by the consultant or in the fee schedules or contract.

7. Arbor First makes no warrantee, either expressed or implied, as to the suitability of the information contained in any reports or correspondence, either written or verbal, for any particular purpose. It remains the responsibility of the client to determine applicability to his/her particular case.

8. Any report and the values, observations, and recommendations expressed therein represent the professional opinion of the consultant and the fee for services is in no manner contingent upon the reporting of a specified value nor upon any particular finding to be reported.

9. Any photographs, diagrams, graphs, sketches, or other graphic material included in any report, being intended solely as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys, unless otherwise noted in the report. Any reproductions of graphic material or the work product of any other persons is intended solely for the purpose of clarification and ease of reference. Inclusion of said information does not constitute a representation by Arbor First or the consultant as to the sufficiency or accuracy of that information.

10. Payment terms are net payable upon receipt of invoice. All balances due beyond 30 days of invoice date will be charged a service fee of 1.5 percent per month (18.% APR). All checks returned for insufficient funds or any other reason will be subject to a $30.00 service fee. Advance payment of fees may be required in some cases.

Attachment B:
Arborist Submitted Materials

City Council Meeting

In Regards to the *Eucalypus globulus*, Blue Gum Eucalyptus' on Coral Ave. and San Jacinto St.

I am a Certified Arborist and have been working with trees for over 30 years. I am concerned about the Blue Gum Eucalyptus trees on Coral Ave. and San Jacinta St. They have not received the proper form of pruning and are a hazard. Recent development plans are being considered that would try to save and build around these trees. In my opinion this is a poor decision and a great liability. In the past I have had to file a report against Morro Bay for saving a Blue Gum Eucalyptus that should not have been. In this particular case the stress of the construction damaged a root and the tree fell over, which caused over $75,000 in damages. It will be much more cost effective to remove these trees prior to construction. The following are some facts about this breed of tree that bring me to the conclusion that these trees should be removed.

1. Trees trimmed every year from the bottom will not develop girth to support the weight of the branches. These trees have been trimmed every 1-3 years. The pruning that they have received has not been reduction pruning which helps remove weight from heavy branches and shapes the tree so the wind blows around them instead of through. The inner branches when removed keep the branch from developing girth or size to support the weight of the branch.
2. These trees are known to be poor at compartmentalization, which means that they won't heal from injury. The soil compaction and added fill from a major construction site will kill the roots.
3. The roots from these particular trees have been plugging the sewer lines for quite a few years, which is bound to get worse as they age further.
4. These trees are known to grow up to 160 Ft. tall.
5. The roots of these trees will likely tear up house foundations, the Eucalyptus oils will keep plants from growing, and large branches or whole trees will likely fall on houses due to the improper pruning
6. Eucalyptus trees are vulnerable to long horned beetles, especially trees that have been stressed. Examples of factors that stress these trees are age, improper pruning, and construction damage.

In conclusion I feel that these trees are a far greater liability than an asset. The trees have become very wide spread and are now competing for the sun, this is called phototropism*. So the trees are very one sided and the weight will be leaning over the newly developed houses. As stated above these trees can grow to be over 160 Ft. tall, which can easily take out 2 or more houses if they fall, possibly even take somebody's life. One of the first things an arborist is taught is that you must choose the right tree for the right space. Though these trees are lovely they are the wrong tree for the proposed use of this site.

*Phototropism: The influence of light on the direction of plant growth.

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City of Morro Bay
Public Services Department

Addendum to Certified Arborist Report for Coral Avenue.

From the corner of San Jacinto and Coral, a brief analysis was done of the twelve trees toward Highway 1. All of these trees had problems, with some very severe. All but one or two are definite hazards. The following trees are listed in number from 1-12 with their attending problems.

1. Co-dominant leaders with cracks and rot near the cracks.
2. Co-dominant leaders with cracks and rot near the cracks
3. Co-dominant leaders with cracks and rot near the cracks
4. Co-dominant leaders with cracks and rot near the cracks
5. Co-dominant leaders with cracks and rot near the cracks
6. Old pruning cuts too large to heal which reduces structure integrity. More than likely half or more of the inside of the tree is rotten.
7. Co-dominant leaders with cracks and rot near the cracks.
8. Co-dominant leaders with cracks and rot near the cracks. Old pruning cuts too large to heal which reduces structure integrity. More than likely half or more of the inside of the tree is rotten.
9. Co-dominant leaders with cracks and rot near the cracks. Old pruning cuts too large to heal which reduces structure integrity. More than likely half or more of the inside of the tree is rotten. Tree is dead.
10. Large wounds, larger co-dominant leaders
11. Co-dominant leaders with cracks and rot near the cracks. Old pruning cuts too large to heal which reduces structure integrity. More than likely half or more of the inside of the tree is rotten.
12. Co-dominant leaders with cracks and rot near the cracks. Old pruning cuts too large to heal which reduces structure integrity. More than likely half or more of the inside of the tree is rotten.

On the opposite side, although the trees are in better shape, they all have problems, and four are dying.

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OCT 0 3 2007

City of Morro Bay
Public Services Department

Appendix D

45dB, LLC. Acoustics Report

45dB Acoustics

P.O. Box 1406
San Luis Obispo
California 93406

David Lord, PhD dl@45dB.com
Sarah Taubitz, MSME st@45dB.com

tel. 805.704.8046
www.45dB.com

April 18, 2018 (Revision 1)

Project 1725

RE: Huber 6-Lot Subdivision
APN 065-386-015
2783 Coral Avenue
Morro Bay, CA

Requested by:
David Watson, AICP
Watson Planning
PO Box 385
Pismo Beach, CA 93448-0385
dave@watsonplanning.us
CC: Kevin Huber, Morro Bay Ventures LLC
c/o Grupe Commercial Company
khuber@grupe.com

1 Summary

45dB Acoustics has reviewed regulatory noise requirements of the Morro Bay Noise Element for the proposed 6-lot single-family residential subdivision located at San Jacinto Street, State Highway 1, and Coral Avenue ("Project"). This acoustic analysis is to accompany a Permit application to the City of Morro Bay.

The modeled existing noise levels range from 72 dBA nearest Highway 1, down to 56 dBA at the western edge of the Project. Twenty-year future (year 2037) noise levels increase by approximately one decibel, i.e., 73 dBA nearest Highway 1 down to 57 dBA at the western edge of the Project. The noise impact on site is due primarily to Highway 1 traffic noise. At this time, there are no architectural design plans with which to assess Sound Transmission Class (STC) ratings. In order for the proposed Project to meet or exceed the applicable state and local regulations, the minimum composite wall/window STC rating for the single-family residential (SFR) homes nearest the noise source must be a minimum of STC 28 on the side facing the noise source. It is recommended that the design specification for each SFR home be STC 33 facing the noise source, to allow for a 5 dB variation of as-built STC to designed STC.

No significant sources of vibration exist at the location.

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2 Introduction

This sound level assessment is intended to determine the off-site and on-site noise impacts associated with the proposed subdivision project. The following topics are presented in this report in response to City of Morro Bay requirements for projects identified by the Noise Element of the City's General Plan:

- "The topographical relationship of noise sources and the dwelling/occupied sites to be developed
- Identification of noise sources and their characteristics, including predicted noise spectra at the exterior of the proposed dwelling structure, considering present and future land usage
- Basis for the sound level prediction (measured or obtained from published data), noise attenuation measures to be applied, and an analysis of the noise insulation effectiveness of the proposed construction showing that the prescribed interior noise level requirements are met
- An assessment of potential short-term construction-related noise and vibration impacts
- Information on fundamentals of noise and vibration to aid in interpreting the report

3 Project Location

The subject of this assessment is six (6) lots of single-family homes within a subdivision. The Project is to be located at Tract 1996 within the Cloisters subdivision, and will be located at 2783 Coral Avenue, directly to the west of California State Highway 1, with San Jacinto Street creating the northern border and Coral Avenue the western border. Figure 1 is a Google Maps photo looking southwest from the intersection of San Jacinto and Highway 1 South. Figure 2 shows an aerial view of the tentative tract map for the Project. A drawing of the development is shown in Figure 3.

The site is a relatively flat parcel with a slope of just under 3%. Highway 1 is the significant traffic noise source considered in this study.

Plans for architectural designs and landscaping for the homes and lots are not included, and would be submitted at a subsequent time by interested home buyers-builders.

Figure 1: View of Project land parcel from the northeastern corner

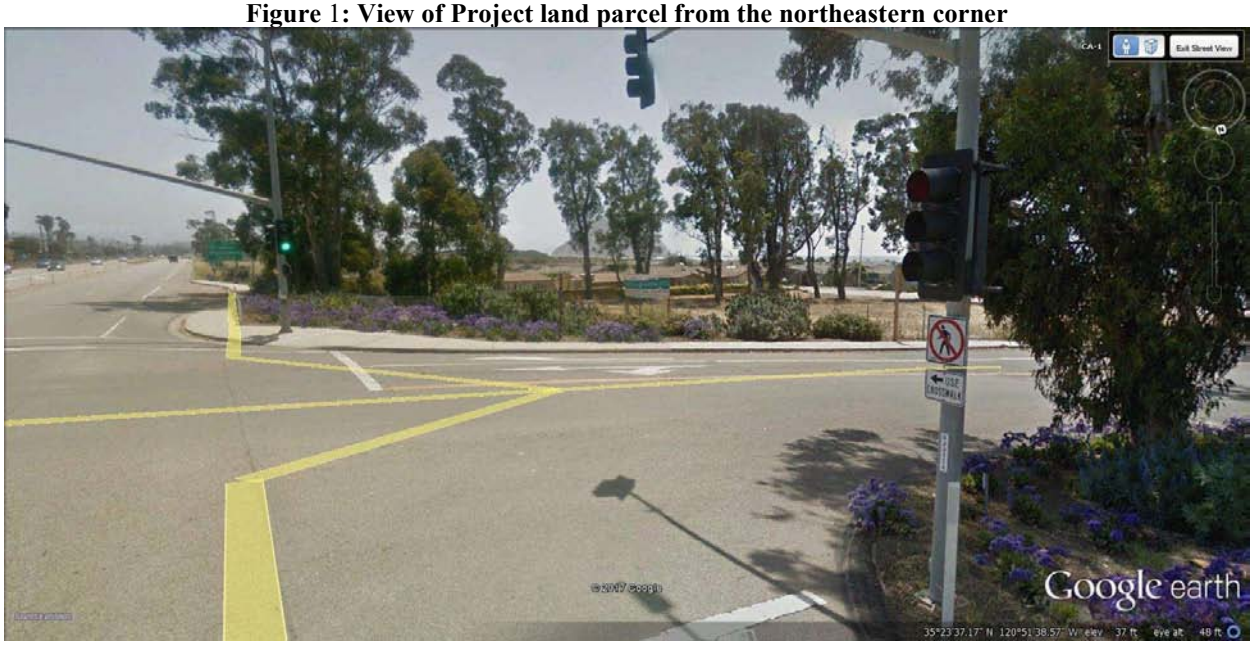


Figure 2: Aerial Map of Site

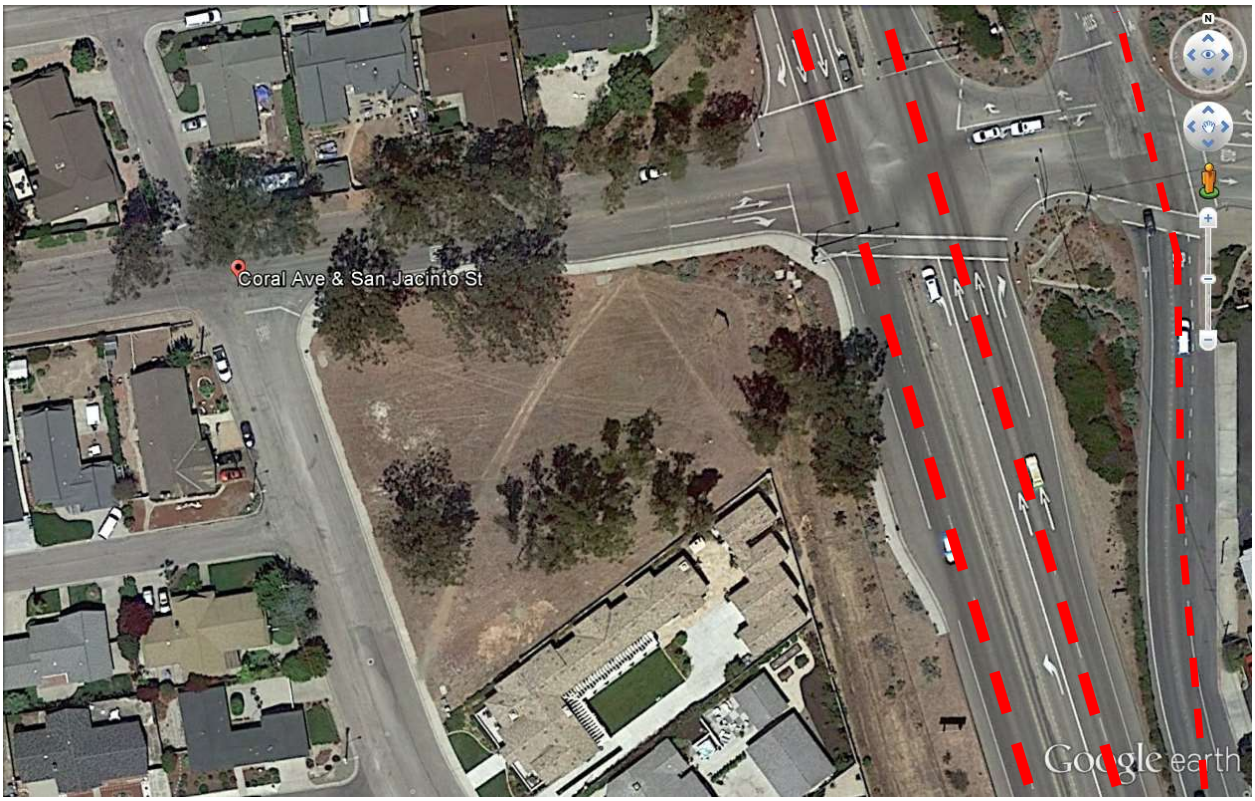


Figure 3: Tentative Tract Map

4 Regulatory Setting

Noise regulations are addressed by federal, state, and local government agencies, discussed below. Local policies are generally adaptations of federal and state guidelines, adjusted to prevailing local condition.

4.1 Federal Regulation

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

a) Promulgating noise emission standards for interstate commerce.
b) Assisting state and local abatement efforts.
c) Promoting noise education and research.

The Department of Transportation (DOT) assumes a significant role in noise control. Surface transportation system noise is regulated by the Federal Transit Administration (FTA). Freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). For this project, the nearest airport is approximately 4 miles to the south and is not a potential noise factor. The nearest railroad line runs north and south and is 0.6 miles southwest of the site; it is located far enough away that noise levels at the Project will not be affected by the train noise. Therefore, Highway is the sole noise source considered relevant for the Project analysis.

4.2 State Regulation

California State Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation inside single-family detached housing to provide an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 55 dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45 dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms shall have an interior CNEL of 45 dBA or less. The 2013 California Green Building Standards Code (CGBSC), Division of the State Architect - Structural Safety (DSA-SS) (CCR, Title 24, Part 11) submittal guideline, chapter 5 contains mandatory requirements for acoustical control:

"5.507.4.1 Exterior noise transmission **prescriptive** method

"Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 ... within the 65 CNEL or LDN noise contour of a freeway or expressway, railroad**,** industrial source or fixed-guideway source as determined by the Noise Element of the General Plan."

Chapter 5.507.4.1.1 governs acoustical performance and noise exposure where noise contours are not readily available:

"Buildings exposed to a noise level of 65 dB Leq-1-hr **[or more]** during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30)."

The **performance** method described above may be used to comply with CGBSC in the following way:

"...wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq -1Hr) of 50 dBA in occupied areas during any hour of operation."

This report provides noise contours utilizing existing CalTrans traffic count data, and therefore the **prescriptive** method may be utilized for building design, adjusted to match calculated/modeled noise levels as presented herein.

4.3 Local Regulation

The City of Morro Bay General Plan, Noise Element Part 1 Policy Document (Reference 1 provides regulation and guidelines regarding noise. The Noise Element provides the conclusions, recommendations, and strategies necessary to ensure an appropriately quiet and pleasurable interior environment for the residents of the proposed project. Since the regulation of transportation noise sources such as roadway and train traffic primarily fall under either State or Federal jurisdiction, the local jurisdiction generally uses land use and planning decisions to limit locations or volumes of such transportation noise sources, to avoid development within noise impact zones, or to shield impacted receivers or sensitive receptors.

5 Sound Level Analysis

As Highway 1 is the primary noise source (and the only transportation source) for this Project, we shall verify exterior (outdoor) noise levels with existing traffic data input to the noise prediction software, in order to determine recommended noise mitigation measures to achieve interior noise level maximum of CNEL = 45 dBA.

5.1 Existing (Outdoor) Sound Level Modeled

The SoundPlan noise model uses the site plan drawing and Highway 1 traffic counts to obtain calculated noise levels. Highway 1 traffic counts are provided by Caltrans' Traffic Census Program. SoundPlan provides the resulting daytime, evening, nighttime, and CNEL noise levels for the project (shown on the following pages), in order to compare against applicable regulations. Traffic data is easily adjusted for 1% growth per year and input into the SoundPlan model again to determine the future noise situation.

Figure 4: Traffic counts data used for noise model input

2015 Traffic Volumes

Dist	Rte	CO	Post Mile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
05	001	SLO	31.13	MORRO BAY, SAN JACINTO STREET	2100	23600	20100	2000	18400	16000

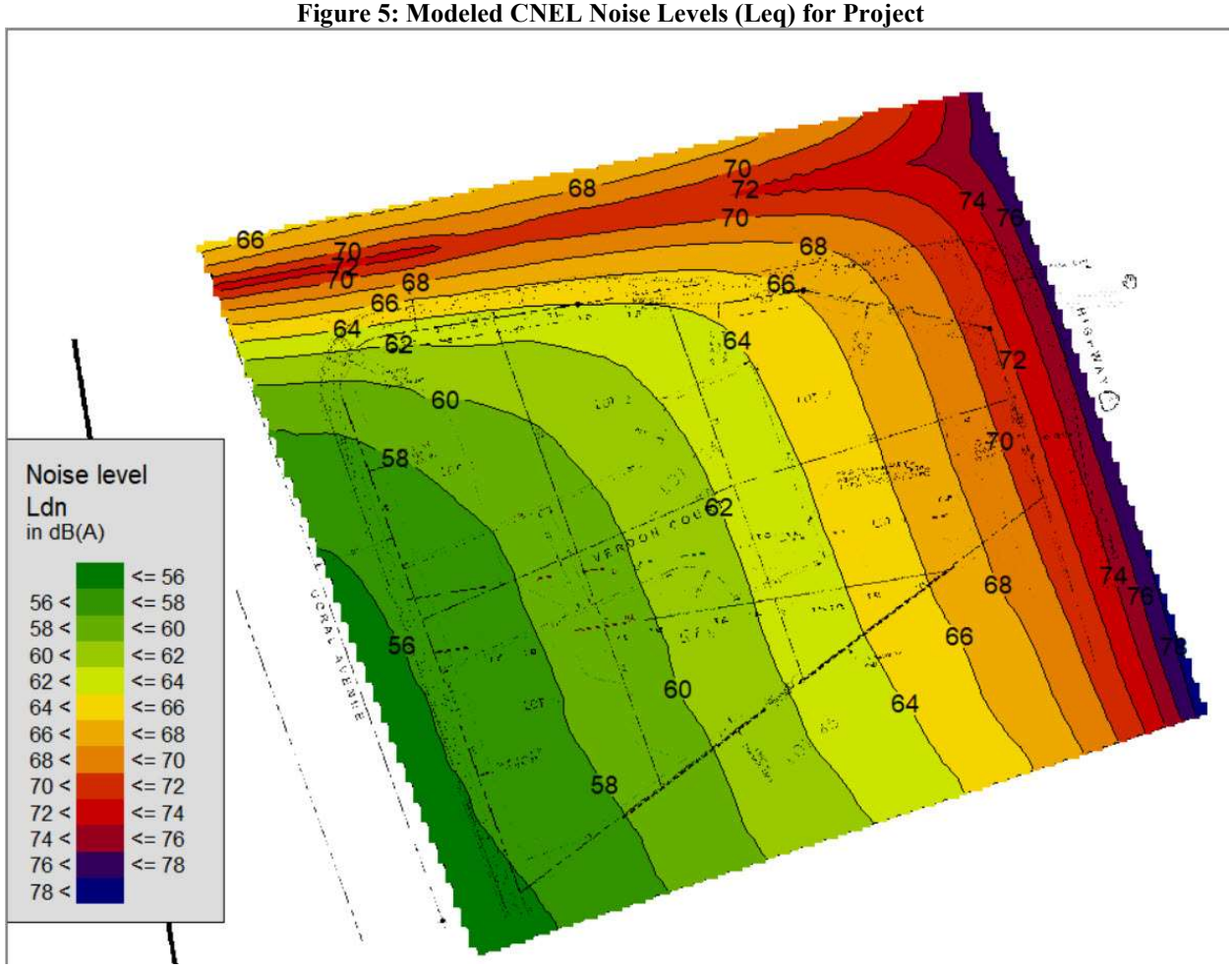
SoundPlan® calculates the sound level contours for the entire calculation area. The software sufficiently calculates sound attenuation of environmental noise, even over complex terrain, uneven ground conditions, and with complex obstacles. The modeling software calculates the sound field in accordance with ISO 9613-2 "Acoustics - Attenuation of sound during propagation outdoors, Part 2: General Method of Calculation." The standard states that "this part of ISO 9613 specifies an engineering method for calculating the attenuation of sound during propagation outdoors, in order to predict the levels of environmental noise at a distance from a variety of sources. The method predicts the equivalent continuous A-weighted sound pressure level under meteorological conditions favorable to propagation from sources of known sound emissions. These conditions are for downwind propagation under a well-developed moderate

ground-based temperature inversion, such as commonly occurs at night." This model is sufficiently conservative—but not overly so, which would render the results unrealistic.

Resulting equivalent noise levels Community Noise Equivalent Levels (CNEL, also Leq) are shown in Figure 5 below for the site layout.

It is readily seen that noise levels are lowest (57 dBA) on the western side of the Project, away from Highway 1. Noise levels exceed 71 dBA for the eastern faces of the project (facing Highway 1). San Jacinto Street also contributes to the noise levels along that roadway, as shown.

Figure 5: Modeled CNEL Noise Levels (Leq) for Project



5.2 Future (Outdoor) Noise Level

The calculated future Ldn/CNEL (year 2037) at each location across the site will be approximately 1 dB greater that those modeled here, assuming future traffic growth of approximately one percent per year.

The Maximum Exterior Noise exposure compatible with noise sensitive uses without mitigation is 60 dBA Ldn/CNEL. Based on the modeled noise environment for the Project, future habitable spaces should preferably face away from the noise source. Bathrooms, kitchens, corridors and closets are not habitable spaces. If habitable spaces face east toward Highway 1, wall / window composite STC rating shall be sufficient to bring the interior habitable space noise level below CNEL = 45 dBA. A composite/combined wall / window assembly of STC 28 or greater facing the noise source is required for the Project to comply with regulations. A composite STC 33 building envelope facing the noise source is recommended to provide an engineering factor of safety and to allow for some variance due to construction and to provide a potential margin of acoustic comfort for inhabitants of the SFR homes.

5.3 Future (Interior) Noise Levels for the Project

Noise-sensitive uses proposed in areas where the Ldn is 60 dBA or higher should be designed so that interior noise level attributable to exterior sources does not exceed 45 dBA Ldn/CNEL when doors and windows are closed. Future designed plans for this Project can be assessed upon that requirement. There are no designs to assess at this time.

6 Vibration Analysis

The potential for vibration near a highway is defined and described in the Federal Transit Administration *Transit Noise and Vibration Impact Assessment* document. The approximate human threshold of perception to vibration is 70 VdB (Vibration Velocity Level, dB). Buses, trucks and heavy street traffic at 50 feet distance from the highway is equal to 70 VdB or less. Vibration levels along transportation corridors are proportional to the speed and weight of the vehicles as well as the condition of the roadway and vehicle engines and tires. Typically, the setback to the 70 VdB contour along roadways is 100 feet or less from the centerline. The current project is located just further than this distance. Therefore, vibration levels are anticipated to be less than the human threshold of perception, assuming roadways are properly maintained without large holes/irregularities.

7 Noise Mitigation Recommendations

Ordinary construction using best practices shall incorporate STC values for assemblies matching those shown for the planned wall detail and specified window glazing. There are no other noise mitigation measures required to meet all applicable regulations.

8 Conclusion

Compliance with California Green Building Standards Code (CGBSC) for interior spaces on the Project can be achieved by using standard construction wall and roof assemblies and windows and doors that comply with CGBSC with the above STC values as defined in Section 5.2 Future (Outdoor) Noise Levels. No mitigation of construction noise and vibration impact is required due to the short period of construction, the anticipated phased scheduling of construction; the distance to potential residential receptors; and the daytime weekday hours of operation.

With the specified window and exterior wall assemblies in future project plans, this project complies with the interior noise requirements of the State Building Code.

for 45dB Acoustics, LLC

Sarah Taubitz, MSME, INCE

10 Appendix

10.1 Terminology/Glossary

A-Weighted Sound Level [units of dBA or dB(A)]
The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made. The ear does not respond equally to all frequencies, but is less sensitive at low and high frequencies than it is at medium or speech range frequencies. Thus, to obtain a single number representing the sound level of a noise containing a wide range of frequencies in a manner representative of the ear's response, it is necessary to reduce the effects of the low and high frequencies with respect to the medium frequencies. The resultant sound level is said to be A-weighted, and the units are dBA. The A-weighted sound level is also called the noise level. A-weighted sound levels correlate well with subjective reactions of people to noise and are universally used for community noise evaluations.

Air-borne Sound:
Sound that travels through the air, differentiated from structure-borne sound.

Ambient Sound Level:
The prevailing general sound level existing at a location or in a space, which usually consists of a composite of sounds from many sources near and far. The ambient level is typically defined by the Leq level.

Background Sound Level:
The underlying, ever-present lower level noise that remains in the absence of intrusive or intermittent sounds. Distant sources, such as Traffic, typically make up the background. The background level is generally defined by the L90 percentile noise level.

Community Noise Equivalent Level (CNEL):
The Leq of the A-weighted noise level over a 24-hour period with a 5 dB penalty applied to noise levels between 7 p.m. and 10 p.m. and a 10 dB penalty applied to noise levels between 10 p.m. and 7 a.m. CNEL is similar to Ldn.

Day-Night Sound Level (Ldn):
The Leq of the A-weighted noise level over a 24-hour period with a 10 dB penalty applied to noise levels between 10 p.m. and 7 a.m. Ldn is similar to CNEL.

Decibel (dB):
The decibel is a measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

Energy Equivalent Level (Leq):
Because sound levels can vary markedly in intensity over a short period of time, some method for describing either the average character of the sound or the statistical behavior of the

variations must be utilized. Most commonly, one describes ambient sounds in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called Leq.

Field Sound Transmission Class (FSTC):
A single number rating similar to STC, except that the transmission loss values used to derive the FSTC are measured in the field. All sound transmitted from the source room to the receiving room is assumed to be through the separating wall or floor-ceiling assembly.

Outdoor-Indoor Transmission Class (OITC):
A single number classification, specified by the American Society for Testing and Materials (ASTM E 1332 issued 1994), that establishes the A-weighted sound level reduction provided by building facade components (walls, doors, windows, and combinations thereof), based upon a reference sound spectra that is an average of typical air, road, and rail transportation sources. The OITC is the preferred rating when exterior façade components are exposed to a noise environment dominated by transportation sources.

Percentile Sound Level, Ln:
The noise level exceeded during *n* percent of the measurement period, where *n* is a number between 0 and 100 (e.g., L10 or L90)

Sound Transmission Class (STC):
STC is a single number rating, specified by the American Society for Testing and Materials, which can be used to measure the sound insulation properties for comparing the sound transmission capability, in decibels, of interior building partitions for noise sources such as speech, radio, and television. It is used extensively for rating sound insulation characteristics of building materials and products.

Structure-Borne Sound:
Sound propagating through building structure. Rapidly fluctuating elastic waves in gypsum board, joists, studs, etc.

Sound Exposure Level (SEL):
SEL is the sound exposure level, defined as a single number rating indicating the total energy of a discrete noise-generating event (e.g., an aircraft flyover) compressed into a 1-second time duration. This level is handy as a consistent rating method that may be combined with other SEL and Leq readings to provide a complete noise scenario for measurements and predictions. However, care must be taken in the use of these values since they may be misleading because their numeric value is higher than any sound level which existed during the measurement period.

Subjective Loudness Level:
In addition to precision measurement of sound level changes, there is a subjective characteristic which describes how most people respond to sound:

- A change in sound level of 3 dBA is *barely perceptible* by most listeners.

- A change in level of 6 dBA is *clearly perceptible*.
- A change of 10 dBA is subjectively perceived as being *twice* (or *half*) as loud.

10.2 Calculating CNEL

Housing and Urban Development (HUD) Code of Federal Regulations (CFR), Part 51 Environmental Criteria and Standards, along with Federal Highway Administration (FHWA) guidelines are used for estimating CNEL values based on "design hour" traffic flow measurement.

Highway projects receiving Federal aid are subject to noise analyses under the procedures of the FHWA. Where such analyses are available they may be used to assess sites subject to the requirements of this standard. The Federal Highway Administration employs two alternate sound level descriptors (23 CFR 772.12):

> (i) The A-weighted sound level not exceeded more than 10 percent of the time for the highway design hour traffic flow, symbolized as L10; or
> (ii) The equivalent sound level for the design hour, symbolized as Leq. The day-night average sound level may be estimated from the design hour L10 or Leq values by the following relationships, provided heavy trucks do not exceed 10 percent of the total traffic flow in vehicles per 24 hours and the traffic flow between 10 p.m. and 7 a.m. does not exceed 15 percent of the average daily traffic flow in vehicles per 24 hours:
>
> (a) CNEL ≈ L10 (design hour) - 3 decibels
>
> (b) CNEL≈ Leq (design hour) decibels

Existing highway traffic noise measurements are made to represent an hourly equivalent sound level, Leq. Statistical accuracy requires a minimum measurement of approximately eight minutes. Most highway agencies have automated measurement equipment and typically measure 15-minute time periods to represent the Leq. This is acceptable if unusual events do not occur during the noisiest hour.

Measurements along low-volume highways may require longer measurement periods (e.g., 30-60 minutes) to attain desirable statistical accuracy. If information is not available to identify the noisiest hour of the day or if there is public controversy at a specific location, 24-hour measurements may be necessary.

The FHWA stipulates the use of noise meters with sufficient accuracy to yield valid data for the particular project (ANSI S1.4-1983, TYPE II or better). The measurement procedure shall ensure measurements have consistent and supportable validity. Traffic conditions, climatic conditions, and land uses at the time of measurement shall be noted.

10.3 Characteristics of Sound

When an object vibrates, it radiates part of its energy as acoustical pressure in the form of a sound wave. Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate this human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The normal range of human hearing extends from approximately 0 to 140 dBA. Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. Because of the physical characteristics of noise transmission and of noise perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 1 below presents the subjective effect of changes in sound pressure levels.

Table 1: Sound Level Change Relative Loudness/Acoustic Energy Loss

0 dBA	Reference 0%
-3 dBA	Barely Perceptible Change 50%
-5 dBA	Readily Perceptible Change 67%
-10 dBA	Half as Loud 90%
-20 dBA	1/4 as Loud 99%
-30 dBA	1/8 as Loud 99.9%
Source: Highway Traffic Noise Analysis and Abatement Policy and Guidance, U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch, June 1995.	

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as spreading loss. Generally, sound levels from a point source will decrease by 6 dBA for each doubling of distance. Sound levels for a highway line source vary differently with distance because sound pressure waves propagate along the line and overlap at the point of measurement. A closely spaced, continuous line of vehicles along a roadway becomes a line source and produces a 3 dBA decrease in sound level for each doubling of distance. However, experimental evidence has shown that where sound from a highway propagates close to “soft” ground (e.g., plowed farmland, grass, crops, etc.), a more suitable drop-off rate to use is not 3.0 dBA but rather 4.5 dBA per distance doubling (FHWA 2010).

When sound is measured for distinct time intervals, the statistical distribution of the overall sound level during that period can be obtained. The Leq is the most common parameter associated with such measurements. The Leq metric is a single-number noise descriptor that represents the average sound level over a given period of time. For example, the L50 noise level is the level that is exceeded 50 percent of the time. This level is also the level that is exceeded 30 minutes in an hour. Similarly, the L02, L08 and L25 values are the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour, respectively Other values typically noted during a noise survey are the Lmin and Lmax. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law requires that, for planning purposes, an artificial dB increment be added to quiet-time noise levels in a 24-hour noise descriptor called the CNEL or Ldn. This increment is incorporated in the calculation of CNEL or Ldn, described earlier.

10.4 Evidence of Compliance

Evidence of compliance shall consist of submittal of an acoustical analysis report, prepared under the supervision of a person experienced in the field of acoustical engineering, with the application for building permit. The report shall show topographical relationship of noise sources and dwelling site, identification of noise sources and their characteristics, predicted noise spectra at the exterior of the proposed dwelling structure considering present and future land usage, basis for the prediction (measured or obtained from published data), noise attenuation measures to be applied, and an analysis of the noise insulation effectiveness of the proposed construction showing that the prescribed interior noise level requirements are met. If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify the means that will be employed to provide ventilation and cooling, if necessary, to provide a habitable interior environment.

10.5 Accuracy (Uncertainty) in Acoustic Modeling Results

SoundPlan is one of several industry-standard, commercial software packages typically utilized by acoustic consultants today. The modeling software calculates the sound field in accordance with ISO 9613-2 "Acoustics - Attenuation of sound during propagation outdoors, Part 2: General Method of Calculation." This Standard defines the estimated accuracy for sound sources at heights of zero to five meters (0-5 m) as +/- 3 dB for source distances of up to 1000 m (1 km). Further, is estimates the accuracy of the calculation for sound sources at heights of five to thirty meters (5-30 m) to be +/-1 dB for source distance of up to 100 m away from the receiver, and +/- 3 dB for source distances of between 100 and 1000m away from the receiver. These estimated accuracies are considered by 45dB Acoustics to be the same as the uncertainty, or error, on the resulting sound level contours for any model created. Flat terrain is generally expected to have lower error/uncertainty (higher accuracy); complex terrain situations may produce resulting noise level contours error/uncertainty at the high end of these stated estimates. *Error/uncertainty has not been added to the results presented herein. It may be pertinent to add additional sound mitigation, and/or higher STC values to designed structures, to create the highest possible level of confidence that noise regulations are fully met.*

11 References

1. American National Standards Institute, Inc. 2004. *ANSI 1994 American National Standard Acoustical Terminology*. ANSI S.1.-1994, (R2004), New York, NY.
2. American Society for Testing and Materials. 2004. ASTM E 1014 - 84 (Reapproved 2000) Standard Guide for Measurement of Outdoor A-Weighted Sound Levels.
3. Bolt, Beranek and Newman. 1973. *Fundamentals and Abatement of Highway Traffic Noise*, Report No. PB-222-703. Prepared for Federal Highway Administration.

4. California Department of Transportation (Caltrans). 1982. *Caltrans Transportation Laboratory Manual.*
5. _____. 1998. Caltrans Traffic Noise Analysis Protocol for New Highway Construction and Highway Reconstruction Projects
6. California Resources Agency. 2007. *Title 14. California Code of Regulations* Chapter 3: Guidelines for Implementation of the California Environmental Quality Act Article 5. Preliminary Review of Projects and Conduct of Initial Study Sections, 15060 to 15065.
7. City of Morro Bay, California, General Plan Noise Element.
8. Federal Highway Administration. 2006. FHWA Roadway Construction Noise Model User's Guide Final Report. FHWA-HEP-05-054 DOT-VNTSC-FHWA-05-01
9. Harris, Cyril M., editor. 1979 *Handbook of Noise Control*.

Appendix E

Response to Comments on the Draft IS-MND

Response to Comments on the Draft IS-MND

1 Introduction

1.1 Purpose of the Response to Comments on the Draft IS-MND

This document has been prepared to respond to comments received on the Draft Initial Study-Mitigated Negative Declaration (Draft IS-MND) prepared for the proposed Coral Avenue Subdivision Project (Project). The Draft IS-MND identifies the likely environmental consequences associated with development of the project, and recommends mitigation measures to reduce potentially significant impacts. This Response to Comments (RTC) Document provides a response to comments received on the Draft IS-MND by the lead agency and makes revisions to the Draft IS-MND, as necessary, in response to those comments or to make clarifications to material in the Draft IS-MND. This document, together with the Draft IS-MND, constitutes the Final IS-MND for the project.

1.2 Environmental Review Process

Pursuant to the California Environmental Quality Act (CEQA), lead agencies are required to consult with public agencies having jurisdiction over a proposed project and to provide the general public with an opportunity to comment on the Draft IS-MND.

The Draft IS-MND was circulated for a 30-day public review period that began on Friday, May 11, 2018 and ended on Monday, June 11, 2018. The Notice of Availability and Intent to Adopt a Mitigated Negative Declaration was posted in a local newspaper and sent to local and state agencies, as well as interested parties. The Draft IS-MND was posted electronically on the City's website, and a paper copy was available for public review at the City of Morro Bay Community Development Department – Planning Division.

The City received three comment letters on the Draft IS-MND. Copies of written comments received during the comment period are included in Section 2 of this document.

1.3 Document Organization

This Response to Comments (RTC) Document consists of the following sections:

- **Section 1: Introduction**. This section discusses the purpose and organization of this RTC Document and the Final IS-MND, and summarizes the environmental review process for the project.
- **Section 2: Comments and Responses.** This section contains reproductions of the comment letters received on the Draft IS-MND. A written response for each comment received during the public review period is provided. Each response is keyed to the corresponding comment.
- **Section 3: Draft IS-MND Revisions**. Revisions to the Draft IS-MND that are necessary in light of the comments received and responses provided, or necessary to amplify or clarify material in the Draft IS-MND, are shown in this section. Underlined text represents language that has been added to the Draft IS-MND; text with ~~strikeout~~ has been deleted from the Draft IS-MND.

2 Comments and Responses

This section includes comments received during the circulation of the Draft IS-MND for the Coral Avenue Subdivision Project.

The City of Morro Bay received three comment letters on the Draft IS-MND during the public comment period, and one additional letter on the Draft IS-MND after the close of the public comment period. The commenters and the page number on which each commenter's letter appear are listed below.

Letter No. and Commenter		Page No.
1	Fred Collins, Chairman, Northern Chumash Tribal Council	3
2	Vince Kirkhuff, Air Quality Specialist, San Luis Obispo Air Pollution Control District	5
3	Scott Morgan, Director, State Clearinghouse	15
4	Patti Dunton, Tribal Administrator, Salinan Tribe of San Luis Obispo and Monterey Counties	18

The comment letters and responses follow in Section 2. The comment letters have been numbered sequentially and each separate issue raised by the commenter, if more than one, has been assigned a number. The responses to each comment identify first the number of the comment letter, and then the number assigned to each issue (Response 1-1, for example, indicates that the response is for the first issue raised in Letter 1).

Revisions to the Draft IS-MND that are necessary in light of the comments received and responses provided, or necessary to amplify or clarify material in the Draft IS-MND, are shown following the written responses. Underlined text represents language that has been added to the Draft IS-MND; text with ~~strikeout~~ has been deleted from the Draft IS-MND. All revisions are then compiled in the order in which they would appear in the Draft IS-MND (by page number) in Section 3, Text Revisions, of this document.

From: Fred Collins <fcollins@northernchumash.org>
Sent: Tuesday, May 15, 2018 8:45 AM
To: Nancy Hubbard
Subject: Subdivision

Letter 1

Hello Nancy,

Please add language below or similar:

In the event that buried or otherwise unknown cultural resources are discovered during construction work in the area of the find, work shall be suspended and the City of Morro Bay should be contacted immediately, and appropriate mitigations measures shall be developed by qualified archeologist or historian if necessary, at the developers expense. If the coroner determines the remains are Native American, the Native American Heritage Commission (NAHC) will be contacted and the remains will be left in situ and protected until a decision is made on their final disposition.

Thank you,

Fred Collins
Chairman

Northern Chumash Tribal Council
P. O. Box 6533
Los Osos, CA 93412
805-801-0347
fcollins@northernchumash.org

Letter 1

COMMENTER: Fred Collins, Chairman, Northern Chumash Tribal Council

DATE: May 15, 2018

The commenter requests that language be added to the Draft IS-MND cultural resources mitigation describing applicable recommendations and requirements in the event of discovery of buried or otherwise unknown cultural resources during construction work. Mitigation Measure CUL-1 in the Draft IS-MND has been revised to incorporate the commenter's recommended language:

CUL-1 Construction Monitoring

A qualified archaeologist with experience in Northern Chumash ~~Tribal Cultural materials~~ and Playano Salinan material culture and paleontologist shall monitor all groundbreaking and earthmoving activities within the project site that remain within previously undisturbed native soils. In the event that archaeological and historic artifacts are encountered during project construction, all work in the vicinity of the find will be halted until such time as the find is evaluated by a qualified archaeologist and appropriate mitigation (e.g., curation, preservation in place, etc.), if necessary, is implemented. If further testing is required as a result of encounter with archaeological or historic artifacts, a ~~Northern Chumash monitor~~ locally affiliated Native American monitor (e.g., Salinan or Chumash) shall be retained for monitoring.

In the event that buried or otherwise unknown cultural resources are discovered during construction, work shall be suspended and the City of Morro Bay shall be contacted immediately. Appropriate mitigation measures shall be developed by qualified archeologist or paleontologist if necessary. In the event that human remains are discovered during construction, if the coroner determines the remains are Native American, the NAHC shall be contacted and the remains shall be left in situ and protected until a decision is made on their final disposition.

SLO COUNTY apcd | Air Pollution Control District
San Luis Obispo County

Letter 2

June 11, 2018

Ms. Nancy Hubbard
City of Morro Bay
955 Shasta Avenue
Morro Bay, CA 93442

SUBJECT: APCD Comments Regarding the Coral Avenue Subdivision

Dear Ms. Hubbard:

Thank you for including the San Luis Obispo County Air Pollution Control District (APCD) in the environmental review process. We have completed our review of the proposed Coral Avenue Subdivision project. The proposed project would subdivide the approximate 1 acre parcel located in the Cloisters subdivision at the southeast corner of Coral Avenue and San Jacinto Street, into six single family residential lots ranging in size from approximately 6,500 sf to 8,500 sf, which would be accessed by a private drive on a shared easement. The project would remove approximately 17 eucalyptus trees on the undeveloped lot.

The following are APCD comments that are pertinent to this project.

GENERAL COMMENTS

As a commenting agency in the California Environmental Quality Act (CEQA) review process for a project, the APCD assesses air pollution impacts from both the construction and operational phases of a project, with separate significant thresholds for each. **Please address the action items contained in this letter that are highlighted by bold and underlined text**.

CONSTRUCTION PHASE IMPACTS

1

The mitigated negative declaration evaluated the construction impacts of this project using the most recent CalEEMod computer model for estimating construction emissions related to the development of land uses. The modeling results indicate that the construction phase impacts will likely be less than the APCD's significance threshold values identified in Table 2-1 of the CEQA Air Quality Handbook (available at the APCD web site: slocleanair.org). **Therefore, with the exception of the requirements below, the APCD is not requiring other construction phase mitigation measures for this project.**

Naturally Occurring Asbestos

2

Naturally occurring asbestos (NOA) has been identified by the California Air Resources Board as a toxic air contaminant. Serpentine and ultramafic rocks are very common

throughout California and may contain naturally occurring asbestos. The SLO County APCD has identified areas throughout the county where NOA may be present (see the APCD's 2012 CEQA Handbook, Technical Appendix 4.4). The project site is located in a candidate area for Naturally Occurring Asbestos (NOA), and the following requirements apply: Under the CARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (93105), **prior to any construction activities at the site, the project proponent shall ensure that a geologic evaluation is conducted to determine if the area disturbed is exempt from the regulation. An exemption request must be filed with the APCD.** If the site is not exempt from the requirements of the regulation, the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD. More information on NOA can be found at: slocleanair.org/business/asbestos.php. **2**

Developmental Burning

Effective February 25, 2000, **the APCD prohibited developmental burning of vegetative material within San Luis Obispo County.** If you have any questions regarding these requirements, contact the APCD Engineering & Compliance Division at (805) 781-5912. **3**

Dust Control Measures

Construction activities can generate fugitive dust, which could be a nuisance to local residents and businesses in close proximity to the proposed construction site. **Projects with grading areas that are within 1,000 feet of any sensitive receptor (Residences, Cloisters Community Park) shall implement the following mitigation measures to manage fugitive dust emissions such that they do not exceed the APCD's 20% opacity limit (APCD Rule 401) or prompt nuisance violations (APCD Rule 402).**

a. Reduce the amount of the disturbed area where possible;
b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the APCD's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. **Please note that since water use is a concern due to drought conditions, the contractor or builder shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control.** Please refer to the following link for potential dust suppressants to select from to mitigate dust emissions: http://www.valleyair.org/busind/comply/PM10/Products%20Available%20for%20Controlling%20PM10%20Emissions.htm; **4**
c. All dirt stock pile areas should be sprayed daily and covered with tarps or other dust barriers as needed;
d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible, following completion of any soil disturbing activities;
e. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;

g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
j. "Track-Out" is defined as sand or soil that adheres to and/or agglomerates on the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto any highway or street as described in California Vehicle Code Section 23113 and California Water Code 13304. To prevent track out, designate access points and require all employees, subcontractors, and others to use them. Install and operate a 'track-out prevention device' where vehicles enter and exit unpaved roads onto paved streets. The 'track-out prevention device' can be any device or combination of devices that are effective at preventing track out, located at the point of intersection of an unpaved area and a paved road. Rumble strips or steel plate devices need periodic cleaning to be effective. If paved roadways accumulate tracked out soils, the track-out prevention device may need to be modified; **4**
k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers shall be used with reclaimed water used where feasible. Roads shall be pre-wetted prior to sweeping when feasible;
l. All PM_{10} mitigation measures required should be shown on grading and building plans; and,
m. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints and reduce visible emissions below the APCD's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

<u>Construction Permit Requirements</u>
Based on the information provided, we are unsure of the types of equipment that may be present during the project's construction phase. Portable equipment, 50 horsepower (hp) or greater, used during construction activities may require California statewide portable equipment registration (issued by the California Air Resources Board) or an APCD permit.

The following list is provided as a guide to equipment and operations that may have permitting requirements but should not be viewed as exclusive. For a more detailed listing, refer to the Technical Appendices, page 4-4, in the APCD's 2012 CEQA Handbook. **5**

- Power screens, conveyors, diesel engines, and/or crushers;
- Portable generators and equipment with engines that are 50 hp or greater;
- Electrical generation plants or the use of standby generator;
- Internal combustion engines;
- Rock and pavement crushing;
- Unconfined abrasive blasting operations;
- Tub grinders;
- Trommel screens; and,

- Portable plants (e.g. aggregate plant, asphalt batch plant, concrete batch plant, etc).

To minimize potential delays, prior to the start of the project, please contact the APCD Engineering & Compliance Division at (805) 781-5912 for specific information regarding permitting requirements. 5

Construction Phase Idling Limitations

This project is in close proximity to nearby sensitive receptors (Residences, Cloisters Community Park). Projects that will have diesel powered construction activity in close proximity to any sensitive receptor shall implement the following mitigation measures to ensure that public health benefits are realized by reducing toxic risk from diesel emissions.

To help reduce sensitive receptor emissions impact of diesel vehicles and equipment used to construct the project, the applicant shall implement the following idling control techniques:

1. California Diesel Idling Regulations
   a. ***On-road diesel vehicles*** shall comply with Section 2485 of Title 13 of the California Code of Regulations. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:
      1. Shall not idle the vehicle's primary diesel engine for greater than 5-minutes at any location, except as noted in Subsection (d) of the regulation; and,
      2. Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 1,000 feet of a restricted area, except as noted in Subsection (d) of the regulation. 6

   b. ***Off-road diesel equipment*** shall comply with the 5-minute idling restriction identified in Section 2449(d)(2) of the California Air Resources Board's In-Use Off-Road Diesel regulation.

   c. Signs must be posted in the designated queuing areas and job sites to remind drivers and operators of the state's 5-minute idling limit.

   d. The specific requirements and exceptions in the regulations can be reviewed at the following web sites: www.arb.ca.gov/msprog/truck-idling/factsheet.pdf and www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf.

   AND

2. Diesel Idling Restrictions Near Sensitive Receptors (*Residences, Cloisters Community Park)*
   In addition to the state required diesel idling requirements, the project applicant shall comply with these more restrictive requirements to minimize impacts to nearby sensitive receptors:
   a. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
   b. Diesel idling within 1,000 feet of sensitive receptors shall not be permitted;

c. Use of alternative fueled equipment is recommended; and
d. Signs that specify the no idling areas must be posted and enforced at the site. 6

OPERATIONAL PHASE IMPACTS

Based on the mitigated negative declaration operational phase emission estimates using the most recent CalEEMod computer model for estimating operational emissions related to the development of land uses, the operational phase would likely be less than the APCD's significance threshold values identified in Table 3-2 of the CEQA Air Quality Handbook. **Therefore, with the exception of the requirements below, the APCD is not requiring other operational phase mitigation measures for this project.** 7

Residential Wood Combustion

Under APCD Rule 504, **only APCD approved wood burning devices can be installed in new dwelling units.** These devices include:

- All EPA-Certified Phase II wood burning devices;
- Catalytic wood burning devices which emit less than or equal to 4.1 grams per hour of particulate matter which are not EPA-Certified but have been verified by a nationally-recognized testing lab;
- Non-catalytic wood burning devices which emit less than or equal to 7.5 grams per hour of particulate matter which are not EPA-Certified but have been verified by a nationally-recognized testing lab;
- Pellet-fueled woodheaters; and
- Dedicated gas-fired fireplaces.

If you have any questions about approved wood burning devices, please contact the APCD Engineering and Compliance Division at (805) 781-5912. 8

Again, thank you for the opportunity to comment on this proposal. If you have any questions or comments, feel free to contact me at (805) 781-5912.

Sincerely,

Vince Kirkhuff

Vince Kirkhuff
Air Quality Specialist

cc: Mr. David Watson, Watson Planning Consultants
Mr. Kevin Huber, Morro Bay Ventures, LLC
Tim Fuhs, Engineering & Compliance Division, APCD
Dora Drexler, Engineering & Compliance Supervisor, APCD

Attachments:

1. Naturally Occurring Asbestos – Construction & Grading Project Exemption Request Form, Construction & Grading Project Form

Air Pollution Control District
San Luis Obispo County

Naturally Occurring Asbestos Construction and Grading Project Form

Applicant Information/Property Owner		**Project Name**	
Address		**Project Address**	
City, State, Zip		**City, State, Zip**	
Email for Contact Person		**Project Site Latitude, Longitude**	**Assessors Parcel Number**
Phone Number	**Date Submitted**	**Agent**	**Phone Number**

Check Applicable	DESCRIPTION (attach applicable required information)	APCD REQUIREMENT 1	APCD REQUIREMENT 2
	Project is subject to NOA requirements but NOT disturbing NOA (See Website Map) **slocleanair.org/rules-regulations/asbestos/noa.php**	Geological Evaluation	Exemption Request Form
	Project is subject to NOA requirements and project is disturbing NOA – more than one acre	Geological Evaluation	Dust Control Measure Plan
	Project is subject to NOA requirements and project is disturbing NOA – one acre or less	Geological Evaluation	Mini Dust Control Measure Plan

Please note that the applicant will be invoiced for any associated fees.

REQUIRED APPLICANT SIGNATURE:

Legal Declaration/Authorized Signature

Date

APCD OFFICE USE ONLY				
Geological Evaluation	**Exemption Request Form**	**Dust Control Measure Plan**		**Monitoring, Health and Safety Plan**
Approved Yes ☐ No ☐	Approved: Yes ☐ No ☐	Approved: Yes ☐ No ☐		Approved: Yes ☐ No ☐
Comments:	Comments:	Comments:		
APCD Staff:	Date Received:	Date Reviewed	OIS Site #	OIS Proj #
Invoice No.	Basic Fee	Additional Fees	Billable Hrs	Total Fees

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Air Pollution Control District
San Luis Obispo County

Naturally Occurring Asbestos
Construction & Grading Project Exemption Request Form

Applicant Information/ Property Owner		**Project Name**	
Address		**Project Address**	
City, State, Zip		**City, State, Zip**	
Email Address		**Project Site Latitude, Longitude**	**Assessors Parcel Number**
Phone Number	**Date Submitted**	**Agent**	**Phone Number**

The District may provide an exemption from Section 93105 of the California Code of Regulations - Asbestos Airborne Toxic Control Measure For Construction, Grading, Quarrying, And Surface Mining Operations for any property that has any portion of the area to be disturbed located in a geographic ultramafic rock unit; if a registered geologist has conducted a geologic evaluation of the property and determined that no serpentine or ultramafic rock is likely to be found in the area to be disturbed. Before an exemption can be granted, the owner/operator must provide a copy of a report detailing the geologic evaluation to the District for consideration. The District will approve or deny the exemption within 90 days. An outline of the required geological evaluation is provided in the District handout **"ASBESTOS AIRBORNE TOXIC CONTROL MEASURES FOR CONSTRUCTION, GRADING, QUARRYING, AND SURFACE MINING OPERATIONS – Geological Evaluation Requirements." See the APCD Website map: slocleanair.org/rules-regulations/asbestos/noa.php**

NOTE: A basic exemption evaluation fee of $187.5**0 will be charged.**

APPLICANT MUST SIGN BELOW:

I request the San Luis Obispo County Air Pollution Control District grant this project exemption from the requirements of the ATCM based on the attached geological evaluation.

Legal Declaration/Authorized Signature

Date:

OFFICE USE ONLY - APCD Required Element – Geological Evaluation			
Date Received:	Date Reviewed:	OIS Site #:	OIS Project #:
	APCD Staff:	Approved	Not Approved
Comments:			

H:\INFO\Forms\ENFORCEMENT\NOAC&GProjectForm&ExemptionRequest-2016.docx

Air Pollution Control District
San Luis Obispo County

Naturally Occurring Asbestos (NOA) Fees

Projects where Naturally Occurring Asbestos such as serpentine rock is likely to be found are subject to the State Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations. Grading projects in the APCD planning area for serpentine rock will require prior District approval of an exemption from the ATCM or an Asbestos Dust Mitigation Plan

Effective June 22, 2016, the revised project review fees by the San Luis Obispo County Air Pollution Control District (APCD) are as follows:

	Basic Fee				Additional Fee	
	Geological Evaluation & Full Exemption	Geological Evaluation & Conditional Exemption	Geological Evaluation & one (1) acre or less	Geological Evaluation & more than one (1) acre	Dust Control Plan Review and Approval	Dust Control Plan Review & Approval with Monitoring
Construction, Grading, Roads, Surface Mining, & Quarrying in Serpentine	$187.50	$250.00	$312.50	$312.50	$125.00	$250.00

Prior to any grading activities at your site, a geologic analysis may be necessary to determine if serpentine rock is present. All subject project applicants should complete an exemption form or the Construction and Grading Project form. These forms, maps, and additional information can be found on the District web site at: www.slocleanair.org

In order to process the review of your project in the shortest time possible, please contact the District immediately at 805-781-5912

Please note that any necessary San Luis Obispo County Air Pollution Control District staff time or resources expended to provide state regulation compliance determinations to any person, regardless of permit status, may be charged at a rate which reflects labor costs as set by the Air Pollution Control Board and actual costs incurred by the APCD.

Letter 2

COMMENTER: Vince Kirkhuff, Air Quality Specialist, San Luis Obispo Air Pollution Control District

DATE: June 11, 2018

Response 2-1

The commenter describes the San Luis Obispo Air Pollution Control District (SLOACOD) role as a commenting agency. The commenter notes that the construction phase impacts were evaluated using the most recent California Emissions Estimator Model (CalEEMod), that the model results indicate that construction phase impacts would not exceed SLOAPCD's recommended significance thresholds, and that SLOAPCD does not recommend additional construction phase mitigation measures for the project. The commenter correctly characterizes the MND findings with respect to air quality and raises no issues regarding to the analysis or conclusions.

Response 2-2

The commenter states that the project site is located in a candidate area for Naturally Occurring Asbestos (NOA), and the project may be subject to the California Air Resources Board's (CARB) Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (93105). The commenter notes that SLOAPCD requires applicants for projects located in a candidate area for NOA to submit a geologic evaluation and exemption request to SLOAPCD for approval prior to any grading activities. If the site is not exempt, the applicant would be required to comply with all requirements outlined in the ATCM, including development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by SLOAPCD. As a condition of approval, the City would require the project applicant to comply with applicable SLOAPCD rules and regulations, as well as applicable State regulations, such as the ATCM for Construction, Grading, Quarrying, and Surface Mining Operations. No additional conditions requiring compliance with SLOAPCD rules and regulations or State regulations are required.

Response 2-3

The commenter states that SLOAPCD prohibits developmental burning of vegetative material in San Luis Obispo County. As a condition of approval, the City would require the project applicant to comply with applicable SLOAPCD rules and regulations. No additional conditions requiring compliance with SLOAPCD rules and regulations are required.

Response 2-4

The commenter states that SLOAPCD requires standard dust control measures for projects with grading areas that are within 1,000 feet of any sensitive receptor. As described in Section 3, *Air Quality*, of the Draft IS-MND, project construction would be required to implement standard SLOAPCD dust and emission control requirements during project construction. Implementation of standard dust control measures would ensure that PM_{10} emissions generated by construction activities would be reduced.

Response 2-5

The commenter states that portable equipment with 50 horsepower (hp) or greater used during construction activities may require California statewide portable equipment registration or a permit from SLOAPCD. As a condition of approval, the City would require the project applicant to comply with applicable SLOAPCD rules and regulations, as well as applicable State regulations. No additional conditions requiring compliance with SLOAPCD rules and regulations or State regulations are required.

Response 2-6

The commenter states that construction activities near sensitive receptors (including residences) are required by SLOAPCD to implement emissions reduction measures to reduce toxic risk from diesel emissions. As a condition of approval, the City would require the project applicant to comply with applicable SLOAPCD rules and regulations, as well as applicable State regulations (including CARB's 5-minute idling limit). No additional conditions requiring compliance with SLOAPCD rules and regulations or State regulations are required.

Response 2-7

The commenter states that the operational phase impacts were evaluated using the most recent version of CalEEMod, that the model results indicate that operational phase impacts would not exceed SLOAPCD's recommended significance thresholds, and that SLOAPCD does not recommend additional operational phase mitigation measures for the project. The commenter correctly characterizes the MND findings with respect to air quality and raises no issues regarding to the analysis or conclusions.

Response 2-8

The commenter notes SLOAPCD Rule 504, which requires that only SLOAPCD-approved wood-burning devices can be installed in new dwelling units. As a condition of approval, the City would require the project applicant to comply with applicable SLOAPCD rules and regulations, including Rule 504. No additional conditions requiring compliance with SLOAPCD Rule 504 are required.

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Letter 3

RECEIVED
JUN 18 2018
City of Morro Bay
Public Works Department

June 12, 2018

Nancy Hubbard
City of Morro Bay
955 Shasta Avenue
Morro Bay, CA 93442

Subject: Coral Avenue Subdivision Project
SCH#: 2018051020

Dear Nancy Hubbard:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on June 11, 2018, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
1-916-322-2318 FAX 1-916-558-3184 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2018051020
Project Title Coral Avenue Subdivision Project
Lead Agency Morro Bay, City of

Type MND Mitigated Negative Declaration

Description The project applicant is proposing to subdivide the project site into six single family residential lots ranging in size from approx 6,500 sf to 8,500 sf. The two easternmost lots have been designed to accommodate the existing on-site drainage feature. Access to the lots would come from a private drive that would be a shared easement area, maintained by property owners. Grading requirements would include installation of utilities to serve lots and access. The project would remove approx 17 existing eucalyptus trees. Utilities for the site would be extended from existing facilities at Coral Ave.

Lead Agency Contact

Name Nancy Hubbard
Agency City of Morro Bay
Phone (805) 772-6211 **Fax**
email
Address 955 Shasta Avenue
City Morro Bay **State** CA **Zip** 93442

Project Location

County San Luis Obispo
City Morro Bay
Region
Lat / Long 35° 23' 36" N / 120° 51' 40" W
Cross Streets Coral Ave and San Jacinto St
Parcel No. 065-386-015
Township **Range** **Section** **Base**

Proximity to:

Highways 1
Airports
Railways
Waterways Alva Paul Creek, Morro Creek
Schools Del Mar ES, MBHS
Land Use moderate density res (4-7 du/acre)/coastal resource res w/ golf course planned dev overlay (CRR/GC/PD)

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Fish and Wildlife, Region 4; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 5; Regional Water Quality Control Board, Region 3; Native American Heritage Commission; State Lands Commission

Date Received 05/11/2018 **Start of Review** 05/11/2018 **End of Review** 06/11/2018

Note: Blanks in data fields result from insufficient information provided by lead agency.

Letter 3

COMMENTER: Scott Morgan, Director, State Clearinghouse

DATE: June 12, 2018

The commenter states that the Draft IS-MND was submitted to selected State agencies for review, and notes that no State agencies submitted comments to the Clearinghouse on the Draft IS-MND by the time the review period closed on June 11, 2018. The commenter states that the State Clearinghouse acknowledges that the City has complied with the State Clearinghouse review requirements for environmental documents, pursuant to CEQA. Compliance with State Clearinghouse review requirements is noted.

Letter 4

From: info@salinantribe.com [mailto:info@salinantribe.com]
Sent: Thursday, June 28, 2018 3:27 PM
To: nhubbard@morrobay.gov; Scot Graham <sgraham@morrobayca.gov>
Subject: Coral Ave. Subdivision Project, Draft IS-MND

Greetings Nancy and Scot,

I have reviewed the Draft IS-MND. I was totally shocked that on page 24 of the Cultural Resource section that there was no mention of the Salinan People. I request that in this section on page 24, Mitigation Measures, CUL-1 Construction monitoring. In sentence one the addition of this wording must be added. "Along with knowledge in Playano Salinan material Culture. Also a Playano Salinan will be on site during all ground disturbing activities along with the archaeologist. "

Scot this discrimination against the Salinan People must stop. The State of California recognizes our cultural affiliation to the Morro Bay area. Please contact Rincon to update their report. Maybe they should be taken off the City's list of Environmental Specialist. Because they know nothing about the prehistory or history of Moro Bay. We are the ones allowed to climb Morro Rock not the Chumash.

Xayatspanikan,

Patti Dunton, Tribal Administrator

Letter 4

COMMENTER: Patti Dunton, Tribal Administrator, Salinan Tribe of San Luis Obispo and Monterey Counties

DATE: June 28, 2018

The commenter requests that language be added to the Draft IS-MND cultural resources mitigation describing the appropriate role of the Salinan Tribe in the applicable recommendations and requirements in the event of discovery of buried or otherwise unknown cultural resources during construction work. Mitigation Measure CUL-1 in the Draft IS-MND has been revised as follows to incorporate the commenter's recommended language:

CUL-1 Construction Monitoring

A qualified archaeologist with experience in Northern Chumash ~~Tribal Cultural materials~~ and Playano Salinan material culture and paleontologist shall monitor all groundbreaking and earthmoving activities within the project site that remain within previously undisturbed native soils. In the event that archaeological and historic artifacts are encountered during project construction, all work in the vicinity of the find will be halted until such time as the find is evaluated by a qualified archaeologist and appropriate mitigation (e.g., curation, preservation in place, etc.), if necessary, is implemented. If further testing is required as a result of encounter with archaeological or historic artifacts, a ~~Northern Chumash monitor~~ locally affiliated Native American monitor (e.g., Salinan or Chumash) shall be retained for monitoring.

3 Draft IS-MND Text Revisions

Section 3 presents specific changes to the text of the Draft IS-MND that are being made to clarify information presented in the Draft IS-MND in response to comments received during the public review period. In no case do these revisions result in a greater number of impacts or impacts of a substantially greater severity than those set forth in the Draft IS-MND. Where revisions to the main text are called for, the page and paragraph are set forth, followed by the appropriate revision. Added text is indicated with underlined text. Text deleted from the Draft IS-MND is shown in ~~strikeout~~. Page numbers correspond to the page numbers of the Draft IS-MND.

Section 5 Cultural Resources – Response 1

Draft IS-MND Page 24 & Page 62

CUL-1 Construction Monitoring

A qualified archaeologist with experience in Northern Chumash ~~Tribal Cultural materials~~ and Playano Salinan material culture and paleontologist shall monitor all groundbreaking and earthmoving activities within the project site that remain within previously undisturbed native soils. In the event that archaeological and historic artifacts are encountered during project construction, all work in the vicinity of the find will be halted until such time as the find is evaluated by a qualified archaeologist and appropriate mitigation (e.g., curation, preservation in place, etc.), if necessary, is implemented. If further testing is required as a result of encounter with archaeological or historic artifacts, a ~~Northern Chumash monitor~~ locally affiliated Native American monitor (e.g., Salinan or Chumash) shall be retained for monitoring.

In the event that buried or otherwise unknown cultural resources are discovered during construction, work shall be suspended and the City of Morro Bay shall be contacted immediately. Appropriate mitigation measures shall be developed by qualified archeologist or paleontologist if necessary. In the event that human remains are discovered during construction, if the coroner determines the remains are Native American, the NAHC shall be contacted and the remains shall be left in situ and protected until a decision is made on their final disposition.

Monitoring: Construction and grading plans shall clearly note the above mitigation measure on applicable sheets, and be clearly visible to contractors and City inspectors. Community Development Department staff shall inspect the site for compliance with the above requirement.

Mitigation Monitoring and Reporting Program

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). This mitigation monitoring and reporting program is designed to ensure compliance with adopted mitigation measures during project implementation. For each mitigation measure recommended in the Final Initial Study-Mitigated Negative Declaration (Final IS-MND), specifications are made herein that identify the action required and the monitoring that must occur. In addition, a responsible agency is identified for verifying compliance with individual conditions of approval contained in this Mitigation Monitoring and Reporting Program.

Mitigation Measure	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
Aesthetics							
AES-1 Lighting Plan Prior to issuance of a building permit, a comprehensive lighting plan shall be submitted for review and approval by the City. The lighting plan shall be prepared using guidance and best practices endorsed by the International Dark Sky Association. The lighting plan shall address all aspects of the lighting, including but not limited to all buildings, infrastructure, and driveways. The lighting plan shall include the following at minimum: a. The point source of all exterior lighting shall be shielded from offsite views. b. Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields. c. Illumination from exterior lights shall be the lowest level allowed by public safety standards. d. Exterior lighting shall be designed to not focus illumination onto exterior walls. e. Bright white-colored light shall not be used for exterior lighting.	Verify implementation of lighting design details through review and approval of the lighting plan and building plans.	Prior to issuance of building permits for the project.	Once	City of Morro Bay			

Mitigation Measure	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
Biological Resources							
BIO-1 Nesting Bird Mitigation Vegetation removal and initial site disturbance for any project elements shall be conducted between July 1 and January 31, outside of the nesting season for birds. If vegetation removal would occur during the bird nesting season (February 1 to June 30th), preconstruction nesting bird surveys shall be required to determine if any active nests are present on the project site. If no active nests are found, then no further mitigation shall be required. If any active nests are found that would be impacted by construction, then the nest sites shall be avoided with the establishment of a non-disturbance buffer zone around active nests as determined by a qualified biologist. Nest sites shall be avoided and protected with the non-disturbance buffer zone until the adults and young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist.	Construction and grading plans shall clearly note this measure on applicable sheets, and be clearly visible to contractors and City inspectors. Inspect the site for compliance with the above requirement.	Review of construction and grading plans prior to issuance of building permits for the project. Review of construction monitoring activities throughout project construction.	Review of construction and grading plans: once. Project site inspection: periodically throughout construction activities.	City of Morro Bay			
BIO-2 Tree Replacement Eucalyptus trees removed shall be replaced at a ratio of two five-gallon trees, or one 15-gallon tree, for every tree removed. The replacement trees	Review landscape plans and verify implementation of the landscape plan on the project site.	Review landscape plans prior to issuance of building permits. Verify implementation of the landscape plan	Review landscape plans: once. Project site inspection to verify implementation of the	City of Morro Bay			

Mitigation Measure	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
may be planted on the project site, or on other privately-held lands within the property owners' permission, or presented to the City to plant on public lands. Replacement trees as appropriate for the site shall be incorporated into a landscape plan for the project, and if planted prior to construction of residences, shall be protected during construction to ensure their viability.		prior to occupancy.	landscape plan: once.				
Cultural Resources							
CUL-1 Construction Monitoring A qualified archaeologist with experience in Northern Chumash Tribal Cultural materials and paleontologist shall monitor all groundbreaking and earthmoving activities within the project site. In the event that archaeological and historic artifacts are encountered during project construction, all work in the vicinity of the find will be halted until such time as the find is evaluated by a qualified archaeologist and appropriate mitigation (e.g., curation, preservation in place, etc.), if necessary, is implemented. If further testing is required as a result of encounter with archaeological or historic artifacts, a Northern Chumash monitor shall be	Construction and grading plans shall clearly note this measure on applicable sheets, and be clearly visible to contractors and City inspectors. Inspect the site for compliance with the above requirement.	Review grading plans prior to issuance of building permits for the project. Review of construction monitoring activities throughout project construction.	Review grading plans: once. Project site inspection: periodically throughout construction activities.	City of Morro Bay			

Mitigation Measure	Action Required	Monitoring Timing	Monitoring Frequency	Responsible Agency	Compliance Verification		
					Initial	Date	Comments
retained for monitoring. In the event that buried or otherwise unknown cultural resources are discovered during construction, work shall be suspended and the City of Morro Bay shall be contacted immediately. Appropriate mitigation measures shall be developed by qualified archeologist or paleontologist if necessary. In the event that human remains are discovered during construction, if the coroner determines the remains are Native American, the NAHC shall be contacted and the remains shall be left in situ and protected until a decision is made on their final disposition.							
Noise							
N-1 Sound Transmission Class Rating for Wall/Window Assemblies To the extent feasible, habitable spaces in SFR homes will face away from State Route 1. Bathrooms, kitchens, corridors and closets are not habitable spaces. If habitable spaces face east toward State Route 1, a composite/combined wall/window assembly of Sound Transmission Class 33 facing the noise source is required to ensure that the interior habitable space noise level would be below 45 dBA CNEL.	Verify implementation of design details through review and approval of building plans.	Prior to issuance of building permits for the project.	Once	City of Morro Bay			