

DRAFT

**Mitigated Negative Declaration
for the
Ocean View Water Main Project**

Prepared for:

Montecito Water District

583 San Ysidro Road
Santa Barbara, CA 93108

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Prepared by:

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DECEMBER 2019

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
CAAQS	California Ambient Air Quality Standards
CCIC	Central Coast Information Center
CEC's	California Energy Commission
CHRIS	California Historic Resources Information System
CPUC's	California Public Utility Commission
EIA	Energy Information Association
GHG	greenhouse gas
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
RPS	Renewables Portfolio Standard
RCNM	Roadway Construction Noise Model
SBCAG	Santa Barbara County Association of Governments
SCCAB	South Central Coast Air Basin
UCSB	University of California Santa Barbara

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1 Introduction

1.1 Project Overview

The Ocean View Avenue Water Main Replacement Project replaces a 100-year old 4-inch cast iron water main, service laterals, one hydrant, and one air vacuum valve on Ocean View Avenue in Montecito, California operated by the Montecito Water District (MWD). This water main replacement is required due to the restriction in flow within the water main and lack of pressure and flow rate for firefighting operations for the adjacent 20 properties. The water main will be replaced with 630 linear feet of new 6-inch ductile iron pipe in a new trench along Ocean View Avenue. The existing 4-inch pipe will remain in service during construction and will be abandoned in place. The water main trench will be 630 feet long by 12 inches wide and 40 inches deep. The project will also replace 18 service laterals with new copper piping. The service lateral trenches will total approximately 400 linear feet and will be 12 inches wide and 30 inches deep. The project will also include a new hydrant lateral and air vacuum valve with a total trench length of 30 linear feet and 12 inches wide and 40 inches deep. All trenching will be backfilled with sand to 6 inches above the top of pipe and concrete slurry above the sand and asphalt to match the existing asphalt thickness in accordance with County of Santa Barbara Construction Standards. The construction timeline is estimated to be 5 business days to install the water main and 10 business days to install the service laterals, hydrant and air vacuum valve.

1.2 California Environmental Quality Act Compliance

In accordance with Section 15073 of the California Environmental Quality Act (CEQA) Guidelines, this Initial Study/Mitigated Negative Declaration (IS/MND) is being circulated to relevant local, state, and federal agencies and to interested organizations and individuals who may wish to review and comment on the IS/MND. MWD circulated the IS/MND to the State Clearinghouse for distribution and a 21-day public review. MWD will evaluate comments received on the Draft IS/MND and will prepare responses to address any substantial evidence that the Project could have a significant impact on the environment. If there is no substantial evidence, MWD as lead agency will adopt the IS/MND in compliance with CEQA.

Written comments must be submitted to MWD by 5:00 p.m. on January 24, 2019. Please include "Ocean View Avenue Water Main Replacement Project" in the subject line. Submit comments to the following:

Montecito Water District
Attention: Adam Kanold
583 San Ysidro Road
Santa Barbara, CA 93108
by email at: akanold@montecitowater.com
or by fax at: (805) 969-7261

This IS/MND and any comments received during the public review process will be considered by the MWD Board of Directors at a public hearing on January 28, 2020, at the Montecito Water District office (583 San Ysidro Road, Santa Barbara, California 93108).

1.3 Project Planning Setting

The Project site is situated within public roads and private residential lots along Ocean View Avenue, extending from Serena Avenue to the northern terminus of Ocean View Avenue. Surrounding land uses are comprised entirely of single-family residences in the immediate vicinity. Site access is open to vehicular traffic; however, Ocean View Avenue is narrow and vehicles may only enter and exit from the south. The project site is located within the Toro Canyon Plan (County of Santa Barbara 2004) area of unincorporated Santa Barbara County and falls within the Coastal Zone boundary. The site consists of relatively flat areas as a result of past grading that gently slopes from the north to the south, with on-site elevations ranging from approximately 85 to 150 feet above mean sea level.

1.4 Public Review Process

There will be a 21-day public review period for the IS/MND, in accordance with the requirements of Section 15073 of the State CEQA Guidelines. In reviewing the IS/MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment and ways in which the potentially significant effects of the proposed Project are avoided or lessened. Comment submittal requirements and deadlines are detailed on Section 1.2 above.

In accordance with Section 15074 of the State CEQA Guidelines, prior to approving the proposed project, the MWD Board of Directors (Board) will consider the proposed IS/MND together with any comments received during the public review process. The Board will adopt the proposed IS/MND only if it finds that that there is no substantial evidence that the Project will have a significant effect on the environment.

2 Summary of Findings

The project and its implementation would have a less than significant effect on the environment with the implementation of the proposed mitigations.

2.1 Environmental Factors Potentially Affected

Potential impacts to Biological, Cultural, Noise, Traffic and Tribal Cultural Resources have been identified for which the prescribed mitigation measures (MM BIO-1, BIO-2, BIO-3, BIO-4; MM CUL-1, CUL-2, CUL-3, CUL-4, CUL-5; MM Noise-1; MM TRA-1; MM TCR-1) will reduce the residual level to less than significant.

2.2 Environmental Determination

The District finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described herein have been added to the project. A Mitigated Negative Declaration has been prepared.

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3 Initial Study Checklist

1. Project title:

Ocean View Avenue Water Main Replacement Project

2. Lead agency name and address:

Montecito Water District
583 San Ysidro Road
Montecito, CA 93108

3. Contact person and phone number:

Adam Kanold, (805) 969-2271

4. Project location:

201 to 238 Ocean View Avenue, Montecito CA 93013

5. Project sponsor's name and address:

Montecito Water District, Adam Kanold
583 San Ysidro Road
Montecito, CA 93108

6. General plan designation:

The General Plan land use designation for the project area is Residential Single Family with a minimum lot size of 1 acre or more.

7. Zoning:

The entire project site has a zoning designation of 1-E-1.

8. Description of project:

The Project will involve the replacement of existing 4-inch cast iron water main with 630 linear feet of new 6-inch ductile iron pipe in a new trench along Ocean View Avenue. The existing 4-inch pipe will remain in service during construction and will be abandoned in place. The water main trench will be 630 feet long by 12 inches wide and 40 inches deep. The Project will also replace 18 service laterals with new copper piping. The service lateral trenches will total approximately 400 linear feet and will be 12 inches wide and 30 inches deep. The Project will also include a new hydrant lateral and air vacuum valve with a total trench length of 30 linear feet and 12 inches wide and 40 inches deep. All trenching will be backfilled with sand to 6 inches above the top of pipe and concrete slurry above the sand and asphalt to match the existing asphalt thickness in accordance with County of Santa Barbara Construction Standards. The construction

timeline is estimated to be 5 business days to install the water main and 10 business days to install the service laterals, hydrant and air vacuum valve.

9. Surrounding land uses and setting:

The Project site is situated within public roads and private residential lots along Ocean View Avenue, extending from Serena Avenue to the northern terminus of Ocean View Avenue. Surrounding land uses are comprised entirely of single-family residences in the immediate vicinity. Site access is open to vehicular traffic; however, Ocean View Avenue is narrow and vehicles may only enter and exit from the south. The project site is located within the Toro Canyon Plan (County of Santa Barbara 2004) area of unincorporated Santa Barbara County and falls within the Coastal Zone boundary. The site consists of relatively flat areas as a result of past grading that gently slopes from the north to the south, with on-site elevations ranging from approximately 85 to 125 feet above mean sea level.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

County of Santa Barbara

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Yes, California Native American tribes traditionally and culturally affiliated with the project area have requested consultation pursuant to Public Resources Code section 21080.3.1. Pursuant to AB-52 and Public Resources Code section 21080.3.1, government (MWD) to government (requesting tribal entities) consultation has occurred, a determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality and mitigation measure have been negotiated and prescribed.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact,” as indicated by the checklist on the following pages.

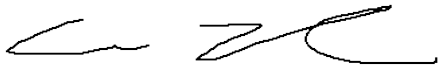
- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

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Determination (To be completed by the Lead Agency)

On the basis of 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 in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ The District finds that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

12-23-19

Date

Evaluation of Environmental Impacts

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

3.1 Aesthetics

The Santa Barbara County Comprehensive Plan (Comprehensive Plan) Land Use Element (County of Santa Barbara 2016), Conservation Element (County of Santa Barbara 2010), Open Space Element (County of Santa Barbara 2009a), and Scenic Highways Element (County of Santa Barbara 2009b), as well as the Toro Canyon Plan Update (County of Santa Barbara 2004), address aesthetics through clear policies, measures, and development standards.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

No Impact. Scenic vistas are singular vantage points that offer unobstructed views of valued viewsheds, including areas designated as official scenic vistas along major highways or designated visual resources. As noted in the Toro Canyon Plan, many public roads in Toro Canyon have a scenic, semi-rural character due to the existing land uses and native vegetation such as oak woodlands. Major view corridors in Toro Canyon that are in the vicinity of the Project include U.S. Highway 101, Via Real, and Toro Canyon Road and are highlighted by scenic views of Paredon Ridge, oak woodlands, coastal agricultural land and glimpses of beaches (County of Santa Barbara 2004). The Project site is located approximately 1,000 feet north of U.S. Highway 101, 800 feet north of Vial Real, and 450 feet east of Toro Canyon Road in a residential neighborhood that is partially screened by landscape vegetation. Views within in the immediate vicinity of the project site will be slightly obstructed by construction vehicles and equipment during project activities. However, following completion of the Project, no obstructions will remain. Based

on the temporary nature of the viewshed obstructions and the distance from scenic vistas, the Project will not have an adverse impact on scenic vistas, and therefore, no impacts will occur.

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

No Impact. The Scenic Highways Element of the Comprehensive Plan presents the goals, evaluation standards, preservation measures, and procedures for obtaining official “scenic highway” designation for state and County roads in Santa Barbara County (County of Santa Barbara 2009b). Currently, there are only two officially designated state scenic highways: (1) State Highway 1 from its intersection with State Highway 101 at Las Cruces north to the southerly city limits of Lompoc, and (2) the entire length of State Highway 154.

The Open Space and Conservation Elements of the Comprehensive Plan provide goals, policies, and standards related to the natural features, resources, and historic heritage of Santa Barbara County (County of Santa Barbara 2009a, 2010). There are no designated natural features or historic buildings that would be visually impacted by the Project because there no physical changes are proposed.

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

No Impact. The Project would use existing infrastructure, and no new infrastructure or physical changes are proposed.

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

No Impact. No lighting is proposed as part of the Project; therefore, there would be no impact.

3.2 Agriculture and Forestry Resources

The Agricultural Element of the Comprehensive Plan contains goals, policies, standards, and implementation measures for the preservation and enhancement of agriculture and the agricultural industry within the County (County of Santa Barbara 2009c). Likewise, the Conservation Element of the Comprehensive Plan contains goals, policies, standards, and implementation measures for the conservation, development, and use of natural resources, including water and its hydraulic force, forests, soils, and rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources (County of Santa Barbara 2010).

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

No Impact. The Project would use existing infrastructure. No new infrastructure or physical changes are proposed, and there would be no potential for any conversion of farmland.

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

No Impact. The Project would use existing infrastructure that is permitted. No new infrastructure or physical changes are proposed; therefore, no conflict with any agricultural uses or Williamson Act-contracted land would occur.

- 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))?*

No Impact. The Project does not propose any land use changes and would use existing infrastructure. As such, no impacts to existing zoning or rezoning of forest or timberland would occur.

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

No Impact. The Project does not propose any physical changes and would not result in any loss or conversion of forestland.

- 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 or conversion of forest land to non-forest use?*

No Impact. The Project would use existing infrastructure that is permitted, was reviewed under previously adopted CEQA documents, and is currently in use. No new infrastructure or physical changes are proposed.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Less Than Significant. The Santa Barbara County Air Pollution Control District (SBCAPCD) and the Santa Barbara County Association of Governments (SBCAG) are responsible for developing and implementing the Clean Air Plan (SBCAPCD and SBCAG 2015) for attainment and maintenance of the ambient air quality standards in the basin. SBCAPCD further describes consistency with the Clean Air Plan for projects subject to these guidelines, which means that direct and indirect emissions associated with the Project are accounted for in the Clean Air Plan's emissions growth assumptions, and the Project is consistent with policies adopted in the Clean Air Plan. The 2016 Ozone Plan was adopted by the SBCAPCD Board on October 20, 2016, and is the most recent applicable air quality plan. The 2016 Ozone Plan is the 3-year update required by the state to show how SBCAPCD plans to meet the state 8-hour ozone (O₃) standard (SBCAPCD 2016).

The 2016 Ozone Plan relies primarily on the land use and population projections provided by SBCAG and the California Air Resources Board on-road emissions forecasts as a basis for vehicle emissions for County incorporated and unincorporated areas.

If a project proposes development that is greater than that anticipated in the local plan and SBCAG's growth projections, the project might be in conflict with the 2016 Ozone Plan and may contribute to a potentially significant cumulative impact on air quality. The Project site is located within the Toro Canyon Plan (County of Santa Barbara 2004) area of unincorporated Santa Barbara County and falls within the Coastal Zone boundary. Because the Project is consistent with the zoning for the Project site, it would not conflict with the growth projections of the County. Furthermore, the Project is not growth inducing.

Based on the nature of the Project, implementation of the Project would not result in development in excess of that anticipated in local plans or increases in population/housing growth beyond those contemplated by SBCAG. As such, the Project would not conflict with or obstruct implementation of a local air quality plan; therefore, impacts associated with consistency with local plans would be less than significant, and no mitigation measures are required.

b) *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?*

Less Than Significant. Cumulative air quality impacts are the effect of long-term emissions of the Project plus any existing emissions at the same location, as well as the effect of long-term emissions of reasonably foreseeable similar projects, on the projected regional air quality or localized air pollution in the County. As discussed in SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (SBCAPCD 2017), the cumulative contribution of Project emissions to regional levels should be compared with existing programs and plans, including the most recent *Clean Air Plan*.

Due to the County's nonattainment status for the 8-hour O₃ standard and its regional nature, if a project's emissions from traffic sources of either of the O₃ precursors VOC or NO_x exceed the long-term emission thresholds, then the project's cumulative impacts would be considered significant. For projects that do not have significant O₃ precursor emissions or localized pollutant impacts, if emissions have been taken into account in the most recent *Clean Air Plan* growth projections, regional cumulative impacts may be considered less than significant. When a project's emissions exceed the thresholds and are clearly not accounted for in the most

recent *Clean Air Plan* growth projections, then the project is considered to have significant cumulative impacts that must be mitigated to a less-than-significant level.

In analyzing cumulative impacts from the Project, the assessment must specifically evaluate the Project's contribution to the cumulative increase in pollutants for which the County is designated as nonattainment for the National Ambient Air Quality Standards or California Ambient Air Quality Standards. The County is currently in attainment for the National Ambient Air Quality Standards and is in attainment for the California Ambient Air Quality Standards, with the exception of the state 8-hour O₃ standard and the state PM₁₀ standards. In order to determine whether the Project has a cumulatively significant impact it will be evaluated against the County's significance thresholds.

Construction Emissions

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be estimated, with a corresponding uncertainty in precise ambient air quality impacts. Detailed construction assumptions including construction equipment information, number of workers, and vendor/haul truck trip information was provided by the MWD.

For purposes of estimating proposed Project emissions, and based on information provided by the applicant, it is assumed that construction of the Project would commence in February 2020¹ and would last approximately 15 days. The analysis contained herein is based on the following subset area schedule assumptions (duration of phases is approximate). The majority of the phases listed below would occur concurrently and would not occur sequentially in isolation. Detailed construction equipment modeling assumptions are provided in Appendix A.

- Excavation: 4 days.
- Pipe Installation and Backfill: 8 days.
- Paving: 3 days.

Emissions from the construction phase of the Project were estimated using the California Emissions Estimator Model (CalEEMod). Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by the applicant, CalEEMod defaults, and best engineering judgement.

General construction equipment modeling assumptions are provided in Table 1, Construction Workers, Vendor Trips, and Equipment Use per Day. Default values for equipment mix, horsepower, and load factor provided in CalEEMod were used for all construction equipment. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week (if a full week). For the purposes of estimating emissions, it was assumed that worker trips and truck trips would be made to

¹ The analysis assumes a construction start date of November 2019, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

the site independently; however, it is likely that workers would drive trucks to and from the site for deliveries rather than driving in a separate vehicle. Therefore, the estimates provided in Table 1 are conservative. Detailed construction equipment modeling assumptions are provided in Appendix A.

Table 3.3-1
Construction Workers, Vendor Trips, and Equipment Use per Day

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Excavation	8	2	28	Excavator	1	8
Pipe Installation and Backfill	8	2	24	Tractors/Loaders/Backhoes	1	8
Paving	8	0	8	Tractors/Loaders/Backhoes	1	8
				Roller	1	8

Note: See Appendix A for additional details.

Table 2 presents the estimated annual construction emissions generated during construction of the Project. Details of the emission calculations are provided in the Appendix A.

Table 3.3-2
Estimated Annual Construction Criteria Air Pollutant Emissions

Year	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	Tons per Year					
2019	0.00	0.03	0.02	0.00	0.00	0.00
SBCAPCD threshold	25	25	25	25	25	25
Threshold exceeded?	No	No	No	No	No	No

Source: Appendix A.

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SBCAPCD = Santa Barbara County Air Pollution Control District

The values shown are the combined maximum annual emissions results from the California Emissions Estimator Model.

See Appendix A for complete results.

As shown in Table 2, annual construction emissions would not exceed the SBCAPCD significance thresholds for volatile organic compound (VOC), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), coarse particulate matter (PM₁₀), or fine particulate matter (PM_{2.5}) emissions during construction.

The Project does not have an operational component and would not generate criteria pollutant emissions once construction is completed. Any maintenance on the Project would be consistent with what currently takes place.

Construction of the Project would generate emissions of VOCs and NO_x (O₃ precursors) and PM₁₀; however, the Project would not exceed SBCAPCD guidance for annual construction emissions. Because implementation

of the Project would result in less-than-significant impacts associated with construction of the Project, the Project's contribution to the County's nonattainment status for the state 8-hour O₃ and PM₁₀ standards would be less than cumulatively considerable. Because the Project would not result in significant O₃ precursor emissions or PM₁₀ emissions, and Project-generated emissions were taken into account in SBCAPCD's 2016 *Ozone Plan* growth projections, cumulative impacts would be less than significant; therefore, no mitigation measures are required.

c) ***Would the project expose sensitive receptors to substantial pollutant concentrations?***

Less Than Significant. Localized project impacts associated with construction criteria air pollutants emissions are assessed as follows.

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SBCAPCD, sensitive receptors include schools, daycare facilities (including public and private childcare centers and worksites with onsite childcare facilities), hospitals, and care facilities (adult/elderly) (SBCAPCD 2019). The Project would be built along a residential street, within 50 feet of the closest residence.

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO "hotspots." CO transport is extremely limited, because CO disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections. Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots. During construction of the project, construction traffic would affect the intersections near the project site. However, the proposed Project would be temporary and would not be a source of daily, long-term mobile-source emissions. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the South Central Coast Air Basin (SCCAB) is steadily decreasing. Finally, as discussed in Section 3.17 of this IS/MND, transportation impacts would be less than significant with mitigation. Furthermore, as discussed in Section 1 of this IS/MND, the Project would not require operational staff because the Project would not generate any additional trips. Therefore, the Project would not generate additional traffic volumes and impacts related to CO hot spots would be less than significant.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As discussed above, the nearest sensitive receptors to the proposed Project are residences located adjacent to the Project as it passes through residential neighborhoods.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SBCAPCD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. The SBCAPCD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) non-carcinogenic effects. TACs that would potentially be emitted during construction activities associated with the proposed Project would be diesel particulate matter.

Diesel particulate matter emissions would be emitted from heavy equipment operations and heavy-duty trucks. Heavy-duty construction equipment is subject to a California Air Resources Board (CARB) Airborne Toxics Control Measure for in-use diesel construction equipment to reduce diesel particulate emissions. As described for the LST analysis, PM₁₀ and PM_{2.5} (representative of diesel particulate matter) exposure would be minimal. According to the Office of Environmental Health Hazard Assessment, health risk assessments (which determine the exposure of sensitive receptors to toxic emissions) should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should also be limited to the period/duration of activities associated with the project. The duration of the proposed construction activities would constitute a small percentage of the total 30-year exposure period. The construction period for the proposed Project would be approximately 15 days, after which construction-related TAC emissions would cease. Furthermore, because of the linear nature of the proposed Project, emissions would not be concentrated in any one work area for the entire construction duration. Proposed Project construction would not generally remain in a single location for more than a few days. Due to this relatively short period of exposure and minimal particulate emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

Following completion of on-site construction activities, the Project would not involve routine operational activities that would generate TAC emissions. Operation of the proposed Project would not result in any non-permitted direct emissions (e.g., those from a point source such as diesel generators). For the reasons previously described, the Project would not result in substantial TAC exposure to sensitive receptors in the vicinity of the proposed Project, and impacts would be less than significant.

Health Effects of Criteria Air Pollutants

Construction emissions of the Project would not exceed the SBCAPCD thresholds for any criteria air pollutants, including VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}.

Health effects associated with O₃ include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2019a). VOCs and NO_x are precursors to O₃, for which the SCCAB is designated as nonattainment with respect to the California Ambient Air Quality Standards (CAAQS). The contribution of VOCs and NO_x to regional ambient O₃ concentrations is the result of complex photochemistry. The increases in O₃ concentrations in the SCCAB due to O₃ precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to

occur. Further, the potential for exacerbating excessive O₃ concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the O₃ CAAQS tend to occur between April and October when solar radiation is highest. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O₃ precursors is speculative. That being said, because the proposed Project would not exceed the SBCAPCD thresholds, the proposed Project would not contribute to health effects associated with O₃.

Health effects associated with NO_x include lung irritation and enhanced allergic responses (CARB 2019a). Because project-related NO_x emissions would not exceed the SBCAPCD thresholds, and because the SCCAB is a designated attainment area for NO₂ and the existing NO₂ concentrations in the area are well below the National Ambient Air Quality Standards (NAAQS) and CAAQS standards, it is not anticipated that the proposed Project would cause an exceedance of the NAAQS and CAAQS for NO₂ or result in potential health effects associated with NO₂ and NO_x.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2019a). CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots was discussed previously and determined to be less than significant. Thus, the Project's CO emissions would not contribute to significant health effects associated with CO.

Health effects associated with PM₁₀ include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2019a). Construction of the Project would not exceed thresholds for PM₁₀ or PM_{2.5}, would not contribute to exceedances of the CAAQS for particulate matter, and would not obstruct the SCCAB from coming into attainment for these pollutants. The project would also not result in substantial diesel particulate matter emissions during construction. Additionally, the Project would be required to comply with SBCAPCD Rule 345, which limits the amount of fugitive dust generated during construction. Due to the minimal contribution of particulate matter during construction, the Project is not anticipated to result in health effects associated with PM₁₀ or PM_{2.5}.

In summary, construction and operation of the proposed Project would not result in exceedances of the SBCAPCD significance thresholds for certain criteria pollutants, and potential health effects associated with criteria air pollutants would be less than significant.

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

Less Than Significant Impact. Although SBCAPCD has not adopted quantitative thresholds of significance for odor impacts, SBCAPCD recommends the development of an odor abatement plan for projects that may generate nuisance odors that may affect a substantial number of people.

Construction Odor Impacts

Potential sources that may emit odors during construction activities include diesel equipment and gasoline fumes. Odors from these sources would be localized and generally confined to the Project site. The closest sensitive receptor to the Project site are residences along Ocean Avenue. The release of odor-causing compounds would tend to be during the workday, when many residents would not be at home. Such odors are temporary and generally occur at magnitudes that would not affect a substantial number of people.

Also, the construction of the Project is only expected to last up to 15 days. Therefore, construction of the Project would not cause an odor nuisance, and impacts associated with odors during construction would be considered less than significant. There would be no new source of odor from the Project once construction is complete.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – 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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Less than Significant with Mitigation Incorporated. A site reconnaissance survey was completed on July 11, 2019 by Dudek biologist Randall McInvale, which resulted in the observation that the Project will take place completely within a residential setting and direct impacts will be limited to excavation within a paved road. No native habitat is present within or in the immediate vicinity of the pProject site; however, individual native trees including coast live oak (*Quercus agrifolia*) are present in private residential lots.

The following assessment of special-status plant and wildlife species is based on a review of the available literature to query species known to occur in the vicinity including the California Natural Diversity Database (CNDDB) (CDFW 2019); U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website (USFWS 2019); and the California Native Plant Society's (CNPS) online Inventory of Rare and Endangered Plants (CNPS 2019). Note that the CNDDB and CNPS database searches were completed within the Carpinteria U.S. Geological Survey (USGS) 7.5-minute quadrangle map, which the Project site falls within, and the surrounding six USGS 7.5-minute quadrangle maps. No USGS quadrangle maps are present to the south and southwest of the Carpinteria quadrangle map. The results of the literature review and the field reconnaissance were utilized to determine species with potential to occur on the Project site. Impacts to potentially occurring special-status species are summarized below, along with mitigation measures to avoid and minimize Project related impacts to the greatest extent feasible.

Special-Status Plants and Sensitive Vegetation Communities

Direct Impacts

A CNDDB and CNPS data base searches returned a total of 47 special-status plant species that are known to occur in the vicinity of the Project site. These species occupy a range of habitat types; however, no suitable habitat for special-status plant species was identified within the Project site. Further, and as noted above, no native vegetation communities are present within the Project site. Due to the developed condition of the Project site, no special-status plant species are expected to occur or be impacted by the Project.

Native trees, including coast live oak, are present in the immediate vicinity of the Project site. Coast live oak are protected under the Toro Canyon Plan (County of Santa Barbara 2004), which identifies local policies, development standards, and guidelines regulating sensitive biological resources. However, no development standards are directly applicable to the Project. Potential impacts to coast live oak trees include excavation within the root zone, which may damage the water uptake and nutrient transport processes of individual trees. Regardless, potential impacts to coast live oak trees can be reduced to a level below significance through the implementation of Mitigation Measure (MM) BIO-1 below.

Indirect Impacts

As noted above, special-status plant species are not expected to occur, and therefore, indirect impacts are not anticipated. However, due to the presence of individual coast live oak trees, there is potential for indirect impacts including dust accumulation, erosion, sedimentation, trash dumping, and introduction of exotics plant and animal species. During construction of the Project, edge effects may include dust, which could disrupt coast live oak tree vitality in the short term, and/or construction-related soil erosion and

runoff. However, typical construction practices, including dust control, erosion control, and water quality protection measures, would be implemented to reduce these effects.

Long-term indirect impacts to coast live oak trees are not anticipated to occur due to the nature of the Project. Following installation of the waterline, the excavation will be backfilled and the ground surface will be restored to pre-project conditions. No on-going indirect impacts will occur as a result of the Project.

Special-Status Wildlife

Direct Impacts

The CNDDDB and IPaC database searches returned a total of 37 special-status wildlife species that are known to occur in the vicinity of the Project site. Of the total, three special-status wildlife species have potential to occur within the Project site; monarch butterfly (*Danaus plexippus*), Cooper's hawk (*Accipiter cooperi*), and white-tailed kite (*Elanus leucurus*). Based on occurrence records in the CNDDDB, four overwintering sites for monarch butterfly are known from within approximately one-half mile of the Project site, though these overwintering sites are characterized as containing dense groves of eucalyptus (*Eucalyptus* sp.) trees capable of supporting the specific habitat requirements of the butterfly. The trees present within the Project area are not clustered in dense groves and do not provide the suitable micro-climate and wind protection conditions required by monarch butterfly. The trees do, however, provide suitable nesting habitat for bird species, including Cooper's hawk and white-tailed kite, as well as other resident and migratory bird species. As no clearing of vegetation is proposed in association with the Project, no direct impacts to special-status wildlife or nesting birds is expected to occur.

Indirect Impacts

Short-term indirect impacts during construction that involve loud noise disruptions during the nesting season have the potential to impact nesting birds adjacent to the Project area, to the degree that the nests may be abandoned, resulting in a direct loss of an active bird nest. Long-term indirect impacts to nesting birds are not anticipated to occur due to the nature of the project. Following installation of the waterline, the excavation will be backfilled and the ground surface will be restored to pre-project conditions. No on-going indirect impacts will occur as a result of the Project.

Bird nests with eggs or young of all migratory bird species are protected under the Migratory Bird Treaty Act and the California Fish and Game Code. The potential loss of an active nest resulting from construction activities would be in conflict with these regulations. Impacts to nesting birds is considered potentially significant. Short-term indirect impacts can be reduced to a level below significance through the implementation of mitigation measure Mitigation Measures BIO-2 and BIO-3.

Mitigation Measures

MM BIO-1 Oak Tree Protection. The root zone of existing coast live oak trees will be avoided to the extent feasible during excavation activities. The excavation alignment will be located outside of coast live oak tree driplines and no vehicles or equipment will be parked or staged under oak tree driplines throughout the duration of Project construction activities.

MM BIO-2 Nesting Bird Survey. Prior to construction activities, a survey for nesting birds shall be conducted by a qualified biologist to determine if active nests of special-status birds, or common bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code, are present in the work zone or within 300 feet of the work zone. The survey should be conducted within one week prior to work activities that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically February 1 through August 31).

MM BIO-3 Nesting Bird Buffers and Requirements. If active nests are found, a no-work buffer shall be established at a minimum of 100-foot (for songbirds) or 300-foot (for raptors) around the nest site where it overlaps with work areas. Buffer distances may be greater depending on the bird species and work activity, as determined by the biologist. Work within no-work buffer shall be postponed, at the discretion of the biologist, until the nest is vacated, juveniles have fledged, and there is no evidence of a second attempt at nesting. In addition, all active nests shall be mapped with a GPS unit and nest locations with 100-foot buffers overlain on aerial photographs to provide regular updated maps to inform the Project manager/engineer and construction crew of areas to avoid. A County-approved biologist should also serve as a construction monitor during the breeding season to ensure that there are no inadvertent impacts to nesting birds.

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, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

No Impact. As described above, the Project site is located within a residential development and no native habitat is present in the immediate vicinity. The nearest mapped Environmentally Sensitive Habitat (ESH) is located approximately 430-feet to the east and is comprised of Garrapata Creek and surrounding riparian habitat. Additional ESH is located approximately 900-feet west of the Project site in association with Toro Creek and surrounding riparian habitat. Due to the distance from the Project site to native habitat and mapped ESH, no direct or indirect impacts are expected to occur and no mitigation is proposed.

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

Less than Significant with Mitigation Incorporated. The literature review included a search of federally maintained sources for information regarding the potential presence of aquatic resources, including the National Wetland Inventory (NWI; USFWS 2019), the National Hydrography Dataset (NHD; USGS 2019a), and the U.S. Geological Survey (USGS) 7.5-minute Carpinteria quadrangle map. A formal delineation of jurisdictional aquatic resources was not conducted; however, based on the results of the literature review and reconnaissance survey, no hydrologic features potentially regulated by the U.S. Army Corps of Engineers (USACE) acting under Section 404 of the CWA; the Regional Water Quality Control Board (RWQCB) acting under Section 401 of the CWA and the Porter-Cologne Act; the California Department of Fish and Wildlife (CDFW) acting under Sections 1600-1607 of the California Fish and Game Code; and the County

Environmental Thresholds and Guidance (County of Santa Barbara 2008) are located within the Project site.

Direct Impacts

The Project does not propose to disturb any aquatic resources subject to the jurisdiction of the USACE, RWQCB, or CDFW. Therefore, no direct impacts would occur.

Indirect Impacts

Short-term indirect impacts to potential off-site jurisdictional aquatic resources may include accidental pollutant (i.e. sediment) and/or chemical discharge that may enter waterways via stormwater runoff should Project activities take place during the typical rainy season (November 1 through May 31). These short-term indirect impact may occur during active construction, prior to backfilling and road repaving. Long-term indirect impacts to off-site jurisdictional aquatic resources are not anticipated to occur due to the nature of the Project. Following installation of the waterline, the excavation will be backfilled and the ground surface will be restored to pre-project conditions. No on-going indirect impacts will occur as a result of the Project. Implementation of MM BIO-4 includes standard construction Best Management Practices (BMPs), which will prevent short-term indirect impacts to adjacent jurisdictional aquatic resources during construction, would reduce these potential impacts to a level below significance.

Mitigation Measures

MM BIO-4 Erosion Control. Standard construction (BMPs) will be implemented to reduce surface runoff from the Project construction area to the greatest extent feasible. BMPs may include soil stockpile cover and containment, stormdrain inlet protection, and track-out control. BMPs will be maintained throughout the duration of the Project to ensure proper functionality.

- 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?***

No Impact. The Project site is situated within a residential development that lacks the constituent elements of a wildlife corridor or habitat linkage, namely linear or patchy habitat connecting adjacent larger patches of habitat. As noted above, Garrapata Creek is located approximately 430-feet to the east and Toro Creek is located approximately 900-feet to the west of the Project site, which represent the nearest wildlife corridor.

Although the Project site is composed of currently developed areas associated with residential development, there is a potential for small, highly mobile species to traverse the Project site and surrounding area. In particular, bird species are anticipated to migrate through the Project site and possibly nest in the adjacent vegetation. The Project site does not serve as a significant wildlife corridor or habitat linkage in this region. Therefore, the Project would not substantially interfere with the movement to wildlife across the region and no direct impacts to wildlife corridors or habitat linkages is expected. Indirect impacts may include construction-related noise causing wildlife to temporarily avoid the area; however, as the Project site does not serve as a significant wildlife corridor or habitat linkage, these short-term indirect impacts are not expected to substantially affect wildlife movement in the region.

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

Less than Significant with Mitigation Incorporated. Environmentally Sensitive Habitat (ESH) and oak trees are protected through policies and development standards detailed in the *Toro Canyon Plan* (County of Santa Barbara 2004), which identifies local policies, development standards, and guidelines regulating sensitive biological resources. However, no development standards are directly applicable to the Project. As noted above, the nearest mapped ESH is located approximately 430-feet to the east and is comprised of Garrapata Creek and surrounding riparian habitat. Additional ESH is located approximately 900-feet west of the Project site in association with Toro Creek and surrounding riparian habitat. Therefore, no impacts to ESH would occur. Potential impacts to coast live oak trees include excavation within the root zone, which may damage the water uptake and nutrient transport processes of individual trees. Regardless, potential impacts to coast live oak trees can be reduced to a level below significance through the implementation of Mitigation Measure BIO-1.

- 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?**

No Impact. The Project site is not located within the boundaries of a Habitat Conservation Plan (HCP), a Natural Communities Conservation Plan (NCCP) area, or any other natural resources management or conservation plan. Therefore, no direct or indirect impacts would occur.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) **Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?**

Less Than Significant Impact. As part of the cultural resources study prepared for the proposed Project (copy of the confidential report is on file with the lead agency), a records search of the California Historical Resources Information System (CHRIS) at the Central Coast Information Center (CCIC) was conducted on July 18, 2019. The CHRIS search included a review the NRHP, the CRHR, the California Points of Historical

Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The CHRIS records search identified thirteen (13) previously recorded cultural resources mapped within 0.5-mile of the proposed project site, including six (6) historic archaeological sites and seven (7) prehistoric archaeological sites. None of these resources intersect or overlap the proposed Project site. No historical resources were identified within the proposed Project site or immediate vicinity as a result of the CHRIS records search. Moreover, there are no buildings or structures within the proposed Project site that are considered to be historical resources for the purposes of CEQA. Therefore, no direct impacts to known historical resources would occur as a result of the proposed Project. **No mitigation is required.**

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less Than Significant with Mitigation Incorporated. As previously discussed, Dudek conducted a CHRIS records search at the CCIC on July 18, 2019. The records search identified 52 previously conducted cultural resources technical investigations within the records search area. Of these, one (1) overlaps the Project site. One report of significance is Report No. SR-00765, *Analysis of Burials from SBA-14* (Walker and Ratliff 1989), which documents the analysis of human remains found during excavations for the installation of sewer lines near CA-SBA-14. The exact location of where the remains were found is not provided within the report. The human remains were discovered slightly below a midden deposit. A second report of significance is Report No. SR-02196, *Extended Phase 1 Testing of CA-SBA-14 APN 05-340-18, Caset-Landrum Lot Split, Santa Barbara County, California* (Hess and Stone 1997). This report documents the results of an Extended Phase I archaeological survey and site boundary definition. The report also includes the results of subsurface exploratory trenching, which yielded 61 pieces of debitage, two quartzite cores, one bifacial mano fragment, 40 pieces of bone, and 12.2 grams of marine shell. As a result of the Extended Phase 1 testing conducted for this project, Hess and Stone recommended project redesign to avoid the native soils in the archaeological site, or a Phase 2 subsurface significance testing program.

Additionally, the CCIC records indicate that thirteen (13) previously recorded cultural resources exist within the surrounding 0.5-mile search radius. The CHRIS records indicate that one previously recorded cultural resource (CA-SBA-14) overlaps the Project site. Resource CA-SBA-14 is a prehistoric site that was first documented in 1929 and identified hundreds of Native American tools, human remains, and organic refuse consisting of shell. The site record was updated in 1988 and referenced a field effort conducted in 1960, which resulted in the recovery of fourteen (14) tools, including manos, metates, hammerstones, flake tools, and a pestle as well as human remains. According to the site records, this site has not been previously evaluated for the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR).

The remaining 12 previously recorded cultural resources are within 0.5-mile of the Project site. Of these, five (5) are historic-era built environment resources, one (1) is a historic site consisting of 37 mature oak trees that were planted in 1928 in memory of World War I Soldiers that lost their lives in the war, and six (6) are prehistoric sites. The prehistoric archaeological sites are summarized below.

CA-SBA-13

CA-SBA-13 is a prehistoric site that was originally recorded by Rodgers, in 1929, as a Canaliño burial site he called “Kolok”. During his investigation Rodgers was informed by the owner that multiple burials, as

many as thirty (30), were uncovered when the surface was being cleared of dense vegetation. The owner claimed that “several of the skeletons appeared to be surrounded by a ring of stone slabs, standing on edge” with a platform of boulders covering the grave (Rodgers 1929). During Rodgers excavation he encountered a single tomb containing five undisturbed skeletons and a tomb that appeared to have never been put to use. Rodgers was unable to determine the boundaries of the cemetery and believed there were possibly many more undisturbed graves.

CA-SBA-13 was revisited by Michael Glassow in 1972, who described the site as a midden area covering the complete surface of promontory. The artifacts he observed consisted of; a milling stone and a mortar fragment, marine shell, and quartzite flakes.

A portion of CA-SBA-13, located at 2937 Padaro Lane, was revisited again in 2008 by Dudek. The updated site record was completed in 2014 and is based on the results of the 2010 Phase 1 Investigation Report. Additional within the 2014 Dudek site record, a previous Phase 1 Investigation by Stone from 1981 is referenced. During the 1981 investigation, they encountered marine shell, two handstone fragments, and two chert flakes. During the 2010 investigation, Dudek encountered a marine shell scatter, but no other cultural remains were uncovered at the time.

CA-SBA-1182

CA-SBA-1182 is a prehistoric site that was recorded in 1980 by Wilcoxon who described the site as a low-density shell and lithic scatter. Wilcoxon stated the site had be disturbed by agricultural activates, subsurface irrigation, dirt roads, and an orchard. The artifacts he observed included; marine shell, chipped stone, three mano fragments, and one doughnut stone fragment.

CA-SBA-1513

CA-SBA-1513 is a prehistoric site that was recorded in 1977 by Wilcoxon who described the site as a sparse shell midden. The artifacts Wilcoxon observed included on piece of ground sandstone, *Chione* spp. and *Tivela stultorum*. He determined CA-SBA-1513 to be a small, limited activity site.

CA-SBA-1514

CA-SBA-1514 is a prehistoric site that was first recorded in 1977 by Wilcoxon who described the site as an extensive shell midden containing shellfish remains, small mammal bones, and lithic debris including a concentration of manos and metate. Wilcoxon dated CA-SBA-1514 as a Milling Stone habitation site, 7000 – 3400 B.P. The site was later revisited in 1990 by Cultural Resource Management Services who performed a Phase III excavation of CA-SBA-1514. Artifacts recovered from the Phase III excavation consisted of; one bone artifact, one stone bead, 37 groundstone tools, fifteen flaked stone stools, over 280 flakes, over 500 grams of shell, and over 70 grams of marine and terrestrial bone. Cultural Resource Management Services determined CA-SBA-1514 to be an Early period base camp.

CA-SBA-1566

CA-SBA-1566 is a prehistoric site that was first recorded in 1978 by Craig and Horme who describe the site as a shell midden consisting of faunal remains, a high density of lithics, stone bowls, asphaltum, and fire altered rocks. They also noted hearth areas which they stated to be occupied between 600 B.C. – 500 A.D. CA-SBA-1566 was revisited in 2011 and 2012 by Applied EarthWorks who performed a Phase II excavation

of the site located at 2825 Padaro Lane. During their excavation, they recovered; over 2,600 terrestrial mammal and fish bones, an extensive marine shell deposit, a high concentration of lithics, disarticulated human bone, and one shell bead. Applied EarthWorks found that decades worth of extensive landscape modifications had resulted in displaced site deposits, however there still exists a significant intact site deposit. Within their 2013 site record of CA-SBA-1566, Applied EarthWorks states that Compass Rose completed a subsurface investigation of the site in March of 2017. Compass Rose's excavation also resulted in a high concentration of lithics, an extensive marine shell deposit, 32 beads, and over 1,000 grams of vertebrate faunal remains. Applied EarthWorks states that the faunal remains from Compass Rose's excavation was not completed, but appeared to include terrestrial, marine, and avian taxa. The beads recovered by Compass Rose suggested the site was occupied from during the middle of the Early Period to the early Late Period.

CA-SBA-2182

CA-SBA-2182 is a prehistoric site that was recorded in 1988 by Wilcoxon and Moriarty who described the site as a low to moderate density surface distribution of shellfish remains, chipped stone debitage, and fragments of thermal-fractured rocks. Site disturbances included creekside erosion, horse trails, a dirt road, and clearance of vegetation and trees. Wilcoxon and Moriarty were not able to determine the northern extent of the site, due to the site extending beyond the parcel they were surveying. CA-SBA-2182 is located to the west and across the creek of CA-SBA-14.

In addition to the CCIC records search, Dudek contacted the NAHC on August 26, 2019 to request a search of the SLF. Results of the SLF (received September 6, 2019) were positive. The NAHC recommended contacting 10 Native American individuals and/or tribal organizations who may have direct knowledge of cultural resources in or near the Project site. No informal tribal consultation was initiated by Dudek for the proposed Project. This coordination was conducted for informational purposes only and does not constitute formal government-to-government consultation as specified by Assembly Bill (AB) 52

In an effort to identify the presence of cultural resources subsurface within the proposed Project site, an Extended Phase 1 subsurface archaeological investigation was conducted to evaluate the site boundary for CA-SBA-14, in the area nearest the Project site, based on surface inspections. These excavations were conducted within landscaped areas along both sides of Ocean View Avenue. The Extended Phase 1 Archaeological Investigations accomplished two major goals: 1) determine the horizontal and vertical presence/absence of prehistoric archaeological materials within the water main improvement area and 2) determine the potential integrity of any subsurface prehistoric archaeological materials. The Extended Phase 1 Archaeological Investigations were conducted on August 26 thru August 30, 2019. All excavations were monitored by Santa Ynez Band of Mission Indians observers Morry Talaugon and Carmen Sandoval, and Gabrielino-Tongva observer Christina Conley. The Extended Phase 1 Archaeological Investigations did identify prehistoric archaeological materials within the proposed water main improvement areas overlapping the 100-foot archaeological buffer zone of CA-SBA-14.

Based on the results provided above, the potential of encountering and impacting unknown archaeological resources, including human remains during project implementation is moderate to high. If such unanticipated discoveries were encountered, impacts to encountered resources could be potentially significant. In order to ensure that all Project personnel are aware of the cultural sensitivity of the Project site, a workers environmental awareness program (WEAP) training will be required to be implemented under **MM-CUL-1** to ensure early identification and response to inadvertent prehistoric and historical-era

resources. In order to further ensure that impacts to unanticipated archaeological resources are appropriately avoided **MM-CUL-2** provides for preparation of an archaeological monitoring and inadvertent discovery plan. Archaeological monitoring under **MM-CUL-3** will occur in all areas with potential to encounter archaeological resources. In the event of an inadvertent discovery of an archaeological resource, a resource-specific management plan will be appropriately developed and implemented to ensure any potential adverse change to this resource is appropriately addressed under CEQA as defined under **MM-CUL-4**. Therefore, impacts to archaeological resources would be less than significant with **MM-CUL-1** through **MM-CUL-4** incorporated.

Mitigation Measures

MM-CUL-1 Workers Environmental Awareness Program (WEAP) Training. All construction personnel and monitors who are not trained archaeologists shall be briefed regarding unanticipated discoveries prior to the start of construction activities. A basic PowerPoint presentation shall be prepared to inform all personnel working on the proposed Project about the archaeological sensitivity of the area. The purpose of the WEAP training is to provide specific details on the kinds of archaeological materials that may be identified during construction of the proposed Project and explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitor.

MM-CUL-2 Cultural Resource Monitoring and Inadvertent Discovery Plan. Impacts to cultural resources shall be minimized through implementation of pre- and post- construction tasks. Tasks pertaining to cultural resources include the development of a cultural resource monitoring and inadvertent discovery plan (Monitoring Plan). The purpose of the Monitoring Plan is to outline a program of mitigation for direct and indirect impacts to cultural resources during all ground-disturbing phases (including but not limited to preconstruction site mobilization, grubbing, construction ground disturbance, construction grading, trenching, and landscaping) of the Project by providing for the identification, evaluation, treatment, and protection of any cultural resources that are affected or may be discovered during the construction of the Project. This Monitoring Plan defines the process to be followed for the identification and management of cultural resources in the Project area during construction to ensure that impacts on cultural resources will not occur without implementing mitigation measures.

Prior to and during construction of the Project, and for the purposes of cultural resources, the established project area shall include, but not be limited to, the following areas:

- All areas within the Project boundary in which ground-disturbing activities will occur, including, but not limited to, grubbing, grading, utility trenching, and landscaping
- All areas in which cultural resources could sustain direct impacts
- Any ancillary Project use areas or facility locations that are outside the Project boundary, including, but not limited to, access roads, yards/support areas, easements, staging

areas, and corridors of construction ground-disturbing activities including, but not limited to, utility tie-ins

MM-CUL-3 Archaeological and Native American Monitoring. In consideration of the known sensitivity of the proposed Project site for cultural resources, archaeological and Native American monitoring shall be conducted during all ground disturbance activities. A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, shall oversee and adjust monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits or material and as approved by the agency. All measures will must be approved by the agency. The cultural resource monitor will be responsible for maintaining daily monitoring logs. Following the completion of construction, the qualified archaeologist shall provide an archaeological monitoring report to the agency and the CCIC with the results of the cultural monitoring program.

MM-CUL-4 Inadvertent Discovery of Archaeological Resources. In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the California Environmental Quality Act (14 CCR 15064.5(f); California PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery, may be warranted.

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

Less Than Significant with Mitigation Incorporated. CCIC records indicate that previously recorded unmarked burials within prehistoric archaeological sites were identified, specifically within CA-SBA-14, which overlaps the northern alignment of the Project site. However, no dedicated cemeteries were identified within 0.5-mile of the Project site. Therefore, the likelihood of encountering human remains within the subsurface of any of the properties within the Project site is low to moderate. In the event human remains are inadvertently encountered during construction activities, impacts would be potentially significant. The discovery of human remains would require handling in accordance with Public Resources Code 5097.98, which states that in the event that human remains are discovered during construction, construction activity shall be halted and the area shall be protected until consultation and treatment can occur as prescribed by law. As such, with the implementation of mitigation measure **MM-CUL-5**, which provides direction in the event of discovery of human remains per Section 7050.5 of the California Health and Safety Code, impacts would be **less than significant with mitigation incorporated**.

Mitigation Measures

MM-CUL-5 Inadvertent Discovery of Human Remains. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the

County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Less Than Significant Impact. The service providers, supply sources, and estimated consumption for electricity, natural gas, and petroleum is discussed below.

Electricity

According to the California Energy Commission's (CEC's) *California Energy Demand Updated Forecast 2016–2026*, California used approximately 280,536 gigawatt hours of electricity in 2014 (CEC 2016a). Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Because of the state's energy efficiency standards and efficiency and conservation programs, California's per capita energy use has remained stable for more than 30 years, while the national average has steadily increased.

Southern California Edison (SCE) provides electricity to the Project area and serves approximately 180 cities in 11 counties across central and Southern California. According to the CEC, approximately 84 billion kilowatt-hours (kWh) of electricity were used in SCE's service area in 2017 (CEC 2019). Demand forecasts anticipate that approximately 75 billion kWh of electricity will be used in SCE's service area in 2020 (CPUC 2016).

SCE receives electric power from a variety of sources. According to the California Public Utility Commission's (CPUC's) 2016 Biennial Renewable Portfolio Standard (RPS) Program Update, 23.2% of SCE's power came from eligible renewables, such as biomass/waste, geothermal, small hydroelectric, solar, and wind sources during the 2014–2016 compliance period (CPUC 2016). This is an increase from the 19.9% that SCE maintained for the 2011–2013 compliance period (CPUC 2014). SCE maintains a lower percentage of renewable energy procurement when compared with California's two other large Investor-Owned Utilities. The other two large utilities, Pacific Gas and Electric Company and San Diego Gas and Electric Company, procured 28% and 36% of their electric power, respectively, from eligible renewables in the 2014–2016 compliance period (CPUC 2016). SCE also maintains a slightly lower percentage of renewables relative to statewide procurement. The CEC estimates that about 26% of the state's electricity retail sales in 2015 came from renewable energy (CEC 2017). The RPS Program establishes a goal for California to increase the amount of electricity generated from renewable energy resources to 20% by 2010 and to 33% by 2020. Recent legislation revised the current RPS target for California to obtain 50% of total retail electricity sales from renewable sources by 2026, and 60% by December 31, 2030.

Natural Gas

SoCalGas serves the City (including the proposed project area). SoCalGas serves 21.6 million customers in a 20,000-square-mile service area that includes over 500 communities (SoCalGas 2018). In 2016 (the most recent year for which data is available), SoCalGas delivered 5,123 million therms of natural gas, with the majority going to residential uses. Demand for natural gas can vary depending on factors such as weather, price of electricity, the health of the economy, environmental regulations, energy-efficiency programs, and the availability of alternative renewable energy sources. Natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand.

Petroleum

Transportation accounts for the majority of California's total energy consumption (CEC 2018). According to the Energy Information Association (EIA), California used approximately 672 million barrels of petroleum in 2016 (EIA 2018). This equates to a daily use of approximately 1.8 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 77 million gallons of petroleum per day, adding up to an annual consumption of 28 billion gallons of petroleum. However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled.

Construction

Electricity

Temporary electric power for as-necessary lighting and electronic equipment would be provided by SCE. The amount of electricity used during construction would be minimal, because typical demand would stem from electrically powered hand tools. The electricity used for construction activities would be temporary and

minimal; therefore, proposed Project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity. Impacts would be less than significant.

Natural Gas

Natural gas is not anticipated to be required during construction of the proposed Project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection "Petroleum." Any minor amounts of natural gas that may be consumed as a result of proposed Project construction would be temporary and negligible and would not have an adverse effect; therefore, proposed Project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas. Impacts would be less than significant.

Petroleum

Heavy-duty construction equipment associated with excavation and construction activities for construction would rely on diesel fuel, as would vendor trucks involved in delivery of materials to the Project site. Construction workers would travel to and from the Project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered light-duty vehicles.

Heavy-duty construction equipment of various types would be used during each phase of Project construction. Table 3 lists the assumed equipment usage for each phase of construction. The Project's construction equipment is estimated to operate a total combined 144 hours.

Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO₂) emissions from each construction phase to gallons using the conversion factors for CO₂ to gallons of gasoline or diesel. Construction is estimated to occur in early 2020 based on the construction phasing schedule. The conversion factor for gasoline is 8.78 kilograms per metric ton CO₂ per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO₂ per gallon (The Climate Registry 2019). The estimated diesel fuel usage from construction equipment is shown in Table 3.

**Table 3.6-1
Construction Equipment Diesel Demand**

Phase	Pieces of Equipment	Equipment CO ₂ (MT)	kg/CO ₂ /Gallon	Gallons
Excavation	1	0.27	10.21	26.22
Pipe Installation and Backfill	1	1.07	10.21	104.80
Paving	2	0.55	10.21	54.18
Total				185.20

Sources: Pieces of equipment and equipment CO₂ (Appendix A); kg/CO₂/Gallon (The Climate Registry 2019).

Notes: CO₂ = carbon dioxide; MT = metric ton; kg = kilogram.

Fuel consumption from worker-, vendor-, and haul-truck trips are estimated by converting the total CO₂ emissions from each construction phase to gallons using the conversion factors for CO₂ to gallons of gasoline or diesel. Worker vehicles are assumed to be gasoline and vendor/hauling vehicles are assumed to be diesel. Calculations for total worker-, vendor-, and haul-truck fuel consumption are provided in Tables 4, 5, and 6.

Table 3.6-2
Construction Worker Gasoline Demand

Phase	Trips	Vehicle MT CO ₂	kg/CO ₂ / Gallon	Gallons
Excavation	32	0.08	8.78	9.49
Pipe Installation and Backfill	64	0.17	8.78	18.97
Paving	24	0.06	8.78	7.12
Total				35.58

Sources: Trips and vehicle CO₂ (Appendix A); kg/CO₂/Gallon (The Climate Registry 2019).

Notes: MT = metric ton; CO₂ = carbon dioxide; kg = kilogram.

Table 3.6-3
Construction Vendor Diesel Demand

Phase	Trips	Vehicle MT CO ₂	kg/CO ₂ /Gallon	Gallons
Excavation	8	0.09	10.21	9.19
Pipe Installation and Backfill	16	0.19	10.21	18.37
Paving	0	0.00	10.21	0.00
Total				27.56

Sources: Trips and vehicle CO₂ (Appendix A); kg/CO₂/Gallon (The Climate Registry 2019).

Notes: MT = metric ton; CO₂ = carbon dioxide; kg = kilogram.

Table 3.6-4
Construction Haul Truck Diesel Demand

Phase	Trips	Vehicle MT CO ₂	kg/CO ₂ /Gallon	Gallons
Excavation	28	1.11	10.21	108.49
Pipe Installation and Backfill	24	0.95	10.21	92.99
Paving	8	0.32	10.21	31.00
Total				232.48

Sources: Trips and vehicle CO₂ (Appendix A); kg/CO₂/Gallon (The Climate Registry 2019).

Notes: MT = metric ton; CO₂ = carbon dioxide; kg = kilogram.

In summary, construction of the Project is conservatively anticipated to consume 36 gallons of gasoline and 445 gallons of diesel, which would last approximately 15 days. By comparison, California's consumption of petroleum is approximately 74.8 million gallons per day. Based on these assumptions, approximately 1.1 billion gallons of petroleum would be consumed in California over the course of the construction period (EIA 2017). Within Santa Barbara County, approximately 7.7 million gallons of petroleum would be consumed over the course of the construction period (CARB 2019b). Therefore, impacts associated during construction would be less than significant.

Operation

As discussed in Section 2.0, maintenance activities for the Project would be similar in scope and scale to the maintenance activities that are currently conducted for the existing pipelines that would be connected and other pipelines throughout MWD's service area under existing conditions. Anticipated maintenance activities would be minimal and similar to maintenance activities currently occurring for the existing pipelines in the Project area; therefore, the Project's energy demand for maintenance would be similar to existing conditions. In addition, energy used for maintenance purposes would decrease over time, as worker vehicles and equipment become increasingly efficient, in accordance with the energy efficiency and GHG reduction standards. As such, energy use for maintenance purposes would not substantially change under the proposed Project, and no impacts would occur as a result of project operations and maintenance.

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

Less than Significant. The Project would follow applicable energy standards and regulations during the construction phases. The Project would be built and operated in accordance with all existing, applicable regulations at the time of construction. For the reasons stated, the proposed Project would not conflict with existing energy standards or regulations, and impacts would be less than significant.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

No Impacts. Surface fault rupture occurs when movement on a fault deep within the earth breaks through the surface. Fault rupture can cause structural damage and safety risks on and near the rupture. Fault rupture along or near a water main alignment would have the potential to compromise the structural integrity of the water main, resulting in the potential for water main breakage and associated safety hazards for people in the area (e.g., flooding and/or temporary service outages).

The “Alquist-Priolo Earthquake Fault Zoning Act” is a state law that regulates development projects near active faults to mitigate the hazard of surface fault rupture. The proposed Project alignment is not located within an Alquist-Priolo fault zone, meaning that the state has not mapped any surface traces of active faults along the alignment. The closest such zone is located along the Pitas Point Fault, which is approximately 8 miles to the southeast of the Project site (CGS 2016). In addition, no known faults traverse the Project site. As such, the risk of fault rupture within the proposed Project is considered low. Furthermore, the Project would not directly or indirectly cause or exacerbate existing fault rupture risks from the construction of associated infrastructure on the Project site. As a result, **no impacts** related to surface rupture of a known earthquake fault would occur and no mitigation is required.

ii) *Strong seismic ground shaking?*

Less than Significant Impact. The Project is located in a seismically active region that is known for its many active faults and historic seismicity. Two late Quaternary faults are located in proximity to the Project site, including Mission Ridge Fault, located 1 mile northeast of the Project site, and the offshore Mesa-Rincon Fault, located approximately 1.6 miles south of the site (USGS 2019b). While these faults are not located within an Alquist-Priolo Fault Zone, the Mission Ridge and Mesa-Rincon Faults are

capable of strong ground shaking. Ground shaking from these faults and others throughout the region resulting from an earthquake could impact the proposed Project. The degree of ground shaking that is felt at a given site depends on the distance from the earthquake source (epicenter), the magnitude of the earthquake, the type of subsurface material on which the site is situated, and topography. Ground shaking could result in severe damage to the water main if subjected to strong horizontal movement that exceeds the design standards, which in turn could result in water main breakage and associated flooding hazards. However, the proposed Project would be constructed in accordance with the California Building Code and County of Santa Barbara Construction Standards, which would minimize the potential for seismically induced water main damage. In addition, Project construction and operation would not increase or exacerbate the potential for strong seismic ground shaking to occur. Therefore, the Project would not directly or indirectly cause potential adverse effects involving seismically induced ground shaking and impacts would be **less than significant**.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Seismic-related ground failure can include hazards such as liquefaction, earthquake-induced landslides, and seismically induced settlement (landslides are addressed below in Section 3.7(a)(iv)). The California Geological Survey has not evaluated the liquefaction potential for the Carpinteria Quadrangle (CGS 2016). However, based on the County of Santa Barbara Seismic Safety and Safety Element Liquefaction Map, the Project site is located within a zone of low liquefaction (County of Santa Barbara 2015a). In the event of liquefaction along or near the Project alignment, the structural integrity of the water main could be compromised, which in turn could result in water main breakage and associated flooding hazards. Nevertheless, the Project would be constructed in compliance with earthquake resistance standards, as required by the California Building Code and County of Santa Barbara Construction Standards. With appropriate design precautions, the potential for liquefaction, seismically induced settlement, or other seismic-related ground failure to adversely affect the new water main would be minimized. Furthermore, the Project would not increase or exacerbate the potential for seismic-related ground failure to occur. Therefore, the proposed Project would not directly or indirectly cause potential adverse effects involving seismically induced ground failure and impacts would be **less than significant**.

iv) Landslides?

Less than Significant Impact. The Project site is characterized by gently-, southeast-sloping terrain (USGS 2015). The California Geological Survey has not evaluated the seismically induced landslide potential for the Carpinteria Quadrangle (CGS 2016). However, based on the County of Santa Barbara Seismic Safety and Safety Element Slope Failure Hazard Zones, the Project site is located in a region with a low potential for landslides (County of Santa Barbara 2015a). Additionally, the Project alignment is located within a relatively flat to gently sloping, paved roadway, away from any hillslopes. As such, grading and excavation required for the proposed Project would not likely increase or exacerbate the potential for landslides to occur. Therefore, the Project would not directly or indirectly cause potential adverse effects involving landslides and impacts would be **less than significant**.

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

Less than Significant with Mitigation Incorporated. The proposed Project would be located within previously developed or disturbed areas, consisting of a paved roadway. Construction activities including open trenching and pipe jacking would produce exposed soils that could be susceptible to erosion as a result of rain, windy

conditions, and/or construction vehicles traveling over exposed soils. As such, implementation of **MM BIO-4** would include standard construction BMPs, which would reduce soil erosion and loss during construction, and would reduce these potential impacts to a less than significant level. Following completion of backfill, the pavement would be replaced and no soil erosion would occur thereafter. As a result, the proposed Project impacts would be considered **less than significant with mitigation incorporated**.

- c) ***Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

Less than Significant Impact. As previously discussed, the Project is within a zone of low liquefaction potential and is not located within an area susceptible to landslides. The Project is underlain by alluvial sediments and is likely underlain by minor amounts of artificial fill (USGS 2009), indicating that some on-site soils may be inadequate for supporting the proposed water main. The structural integrity of the water main could become compromised, which could result in damage to the water main and associated safety hazards for people in the area (e.g., flooding and/or temporary service outages).

In addition, there is a potential for localized shallow groundwater to be present along the Project site. In the event that groundwater is present, the water main could be subject to uplift and/or hydrostatic loads, as well as other geotechnical hazards including swelling and soil collapse. These hazards could compromise the structural integrity of the water main and result in collapse during construction. However, the proposed water main and appurtenant structures would be constructed in compliance with the California Building Code and County of Santa Barbara Construction Standards, which include provisions that mandate pipeline construction on compacted, competent soils, as well as measures to prevent soil collapse of saturated sediments (e.g., temporary shoring). With incorporation of standard building practices in accordance with the California Building Code and County of Santa Barbara Construction Standards, impacts would be **less than significant**.

- d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Less than Significant Impact. Expansive soils are often clay based and tend to increase in volume through water absorption and shrink as a result of drying. The Project is underlain by alluvial sediments and is likely underlain by minor amounts of artificial fill (USGS 2009). As such, soils underlying the Project site may contain clay that is prone to soil expansion. Expansive soils can result in structural damage, particularly if wetting and drying does not occur uniformly throughout the soil. Soil expansion or shrinkage in the soils surrounding the proposed water main could compromise the structural integrity of the water main, causing potential safety risks for the water main and for people in the area (e.g., flooding and/or temporary service outages). However, in compliance with the California Building Code and County of Santa Barbara Construction Standards, all trenching would be backfilled with sand to 6 inches above the top of pipe, thus reducing contact with potentially expansive soils. Furthermore, although the Project could be subject to soil expansion hazards, Project construction and operation would not increase or exacerbate the potential for soils to expand or contract. For these reasons, impacts would be **less than significant**.

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

No Impact. No septic tanks or alternative wastewater disposal systems are proposed. Therefore, **no impact** associated with the use of such systems would occur.

- f) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

No Impact. No unique paleontological resource or site or unique geologic feature is anticipated to be directly or indirectly destroyed as a result of proposed ground disturbances. Ground disturbance activities proposed for this project do not extend into soils below modern alluvial deposits, which are too young to produce significant paleontological resources. Additionally, the Extended Phase I Archaeological Study verified the presence of previously disturbed soils at both the horizontal and vertical extents of the proposed ground disturbances. Therefore, **no impact** to a unique paleontological resource or site or unique geologic feature would occur.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) **Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less Than Significant. The analysis conducted for this section has demonstrated that impacts would be less than significant; therefore, no mitigation is required.

Construction Emissions

Construction of the Project would result in GHG emissions that are primarily associated with use of off-road construction equipment, on-road vendor trucks, and worker vehicles. The County's *Environmental Thresholds and Guidelines Manual* (County of Santa Barbara 2008) recommends the use of a 1,000 metric tons of carbon dioxide equivalent (MT CO_{2e}) bright-line threshold for both construction and operation of stationary-source projects.

The California Emissions Estimator Model was used to calculate the annual GHG emissions based on the construction scenario described in Appendix A. Construction of the Project is anticipated to commence in February 2020 lasting a total of approximately 15 days. On-site sources of GHG emissions include off-road equipment, and off-site sources include on-road vehicles (haul trucks, vendor trucks, and worker vehicles). Table 7 presents construction emissions for the Project from on-site and off-site emission sources.

Table 3.8-1
Estimated Annual Construction Greenhouse Gas Emissions

	CO ₂	CH ₄	N ₂ O	CO _{2e}
Year	Metric Tons per Year			
2019	4.8581	0.00	0.00	4.88
Significance threshold				1,000
Exceeds significance threshold?				No

Source: Appendix A. (See Appendix A for complete results)

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO_{2e} = carbon dioxide equivalent

As shown in Table 7, the estimated total GHG emissions during construction would be approximately 5 MT CO₂e, which does not exceed the County's significance threshold. As with Project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the Project would be short term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. Therefore, the Project would have a less-than-significant impact during construction.

Operational Emissions

Once Project construction is complete, no operational activities associated with the proposed Project would occur (no routine daily equipment operation or vehicle trips would be required). Because the Project would not result in any long-term operational activities, there would be no potential GHG emissions impacts associated with operational GHG emissions. Because the Project's GHG emissions would not result in a cumulatively considerable contribution during operation, the Project would result in a cumulative impact in terms of climate change that is less than significant.

b) *Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less Than Significant. The analysis conducted for this section has demonstrated that impacts would be less than significant; therefore, no mitigation is required.

Consistency with the Energy and Climate Action Plan

The County Board of Supervisors adopted the Energy and Climate Action Plan (ECAP) in May 2015 and certified the accompanying EIR (County of Santa Barbara 2015b). The ECAP meets the criteria in CEQA Guidelines Section 15183.5(b) for a "plan to reduce GHG emissions." The ECAP commits the County to reduce community-wide GHG emissions by 15% below 2007 levels by 2020, consistent with the California Global Warming Solutions Act of 2006 (Assembly Bill 32) and the related Climate Change Scoping Plan (Scoping Plan; CARB 2017). However, the ECAP is not certified beyond 2020.

The ECAP included a GHG emissions forecast for unincorporated Santa Barbara County through 2020. The growth estimates used in the emissions forecast came from the County Regional Growth Forecast 2005–2040 prepared by SBCAG and incorporated 2010 U.S. Census data where available. The estimates were based on factors such as population projections, vehicle trends, and planned land uses. The sources of GHG emissions included various sectors, such as transportation, residential energy, commercial energy, off-road, solid waste, agriculture, water and wastewater, industrial energy, and aircraft. As a result, most residential and commercial projects that are consistent with the County's zoning (in 2007) were included in the forecast and would therefore be considered consistent with the ECAP. However, certain projects were not included in the emissions forecast, such as stationary-source projects (e.g., large boilers, gas stations, auto body shops, dry cleaners, and water treatment facilities), comprehensive plan amendments, and community plans that exceed the County's projected population and job growth, due to uncertainty in forecasting their GHG emissions. Projects not included in the forecast must be evaluated on a case-by-case basis.

The ECAP EIR contains a programmatic analysis of GHG emissions for unincorporated Santa Barbara County. A project that was included in the ECAP's emissions forecast may tier from the ECAP's certified

EIR for its impact analysis of GHG emissions. A project that tiers from the ECAP's EIR is considered in compliance with the requirements in the ECAP and would be considered less than significant.

The Project does not propose a change in zoning or land use designation for the Project site. The Project's construction GHG emissions would be included within the off-road sector within the ECAP. Therefore, the Project would be able to tier off the ECAP and would be considered less than significant.

Consistency with *Fast Forward 2040* – SBCAG's Regional Transportation Plan/Sustainable Communities Strategy

With regard to consistency with SBCAG's Regional Plan, the Project would include site design elements developed to support the policy objectives of the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and Senate Bill 375 where applicable. Table 8 shows the Project's consistency with applicable goals and policy objectives (SBCAG 2017).

**Table 3.8-2
2010–2040 RTP/SCS Consistency Analysis**

Policy Objective or Strategy	Consistency Analysis
1.1, Land Use	<i>Not applicable.</i> The Project would not inhibit SBCAG from implementing land use policies within region.
1.2, Air Quality	<i>Consistent.</i> The Project would not inhibit SBCAG from implementing land use policies within region.
1.3, Alternative Fuels and Energy	<i>Consistent.</i> The Project would not inhibit SBCAG from implementing land use policies within region.
1.4, Aesthetics and Community Character	<i>Consistent.</i> The Project would be consistent with the aesthetics at the Project site.
1.5, Regional Greenprint	<i>Not applicable.</i> The Project would not inhibit SBCAG from pursuing development to mitigate impacts from transportation projects on sensitive biological areas.
2.1, Access, Circulation and Congestion	<i>Not applicable.</i> The Project would not inhibit SBCAG from planning, constructing, and operating transportation facilities.
2.2, System Maintenance, Expansion and Efficiency	<i>Not applicable.</i> The Project would not inhibit SBCAG from maintaining or expanding transportation facilities.
2.3, Alternative Transportation Modes	<i>Not applicable.</i> The Project would not inhibit SBCAG from encouraging alternative transportation modes throughout the County.
2.4, Freight and Goods Movement	<i>Not applicable.</i> The Project would not inhibit SBCAG from facilitating secure and efficient movement of goods and freight.
2.5, Transportation System Management Technologies	<i>Not applicable.</i> The Project would not inhibit SBCAG from implementing transportation system management technologies.
2.6, Consistency with Other Plans	<i>Not applicable.</i> The Project would not inhibit SBCAG from ensuring that transportation facilities are consistent with relevant plans.
3.1, Access	<i>Not applicable.</i> The Project would not inhibit SBCAG from ensuring that transportation systems are accessible for all transportation users.

Table 3.8-2
2010–2040 RTP/SCS Consistency Analysis

Policy Objective or Strategy	Consistency Analysis
3.2, Affordable Housing	<i>Not applicable.</i> The Project would not inhibit SBCAG from encouraging local agencies to plan and provide affordable housing in the community.
3.3, Environmental Justice	<i>Not applicable.</i> The Project would not inhibit SBCAG from improving the public health and safety of the regional transportation system.
4.1, Safe Roads and Highways	<i>Not applicable.</i> The Project would not inhibit SBCAG from planning, constructing, and operating safe roads and highways.
4.2, Public Health	<i>Not applicable.</i> The Project would not inhibit SBCAG from promoting active transportation and complete streets.
5.1, Commuter Savings	<i>Not applicable.</i> The Project would not inhibit SBCAG from reducing average commute time and cost.
5.2, Support Business and Local Investment	<i>Consistent.</i> The Project would provide an investment in the local community and create jobs.
5.3, Public-Private Partnerships	<i>Not applicable.</i> The Project would not inhibit SBCAG from implementing land use policies within region.
5.4, Transportation Funding	<i>Not applicable.</i> The Project would not inhibit SBCAG from seeking funding opportunities to implement the RTP/SCS.

Notes: RTP/SCS = Regional Transportation Plan/Sustainable Communities Strategy; SBCAG = Santa Barbara County Association of Governments; GHG = greenhouse gas; SBCAPCD = Santa Barbara County Air Pollution Control District; GSD = Goleta Sanitary District; Lystek = Lystek International Limited

As shown in Table 8, the Project would be consistent with applicable policy measures in *Fast Forward 2040*, SBCAG's RTP/SCS; therefore, impacts associated with the consistency with the RTP/SCS would be less than significant.

Consistency with the California Air Resources Board's Scoping Plan

The Scoping Plan, approved by the California Air Resources Board on December 12, 2008, provides a framework for actions to reduce California's GHG emissions and requires the California Air Resources Board and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. In the Final Statement of Reasons for the amendments to the CEQA Guidelines, the California Natural Resources Agency observed that "the [Scoping Plan] may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. The California Air Resources Board and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area-source emissions (e.g., energy usage, high-global-warming-potential GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. The Project would comply with applicable regulations adopted in furtherance of the Scoping Plan to the extent required by law.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of Assembly Bill 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 9 highlights measures that have been developed under the Scoping Plan and demonstrates the Project's consistency with Scoping Plan measures. Table 10 also includes measures in the 2017 Scoping Plan Update. To the extent that these regulations are applicable to the Project, its inhabitants, or its uses, the Project would comply with applicable regulations adopted in furtherance of the Scoping Plan.

Table 3.8-3
Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Transportation Sector		
Advanced Clean Cars	T-1	This measure does not apply to the Project.
1.5 Million Zero-Emission and Plug-In Hybrid Light-Duty Electric Vehicles by 2025 (4.2 million zero-emission vehicles by 2030)	N/A	This measure does not apply to the Project.
Low Carbon Fuel Standard	T-2	Motor vehicles driven by the Project's employees would use compliant fuels.
Low Carbon Fuel Standard (18% reduction in carbon intensity by 2030)	N/A	Motor vehicles driven by the Project's employees would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	This measure does not apply to the Project.
Advanced Clean Transit	N/A	This measure does not apply to the Project.
Last Mile Delivery	N/A	This measure does not apply to the Project.
Reduction in Vehicle Miles Traveled	N/A	This measure does not apply to the Project.
Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing	T-4	This measure does not apply to the Project.
Ship Electrification at Ports (Shore Power)	T-5	This measure does not apply to the Project.
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement Systemwide Efficiency Improvements 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction	T-6	This measure does not apply to the Project.
California Sustainable Freight Action Plan	N/A	This measure does not apply to the Project.

Table 3.8-3
Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Heavy-Duty Vehicle GHG Emission Reduction 1. Tractor-Trailer GHG Regulation 2. Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	T-7	This measure does not apply to the Project.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Project	T-8	This measure does not apply to the Project.
Medium- and Heavy-Duty GHG Phase 2	N/A	This measure does not apply to the Project.
High-Speed Rail	T-9	This measure does not apply to the Project.
Electricity and Natural Gas Sector		
Energy Efficiency Measures (Electricity)	E-1	This measure does not apply to the Project.
Energy Efficiency (Natural Gas)	CR-1	This measure does not apply to the Project.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	This measure does not apply to the Project.
Combined Heat and Power	E-2	This measure does not apply to the Project.
Renewable Portfolios Standard (33% by 2020)	E-3	This measure does not apply to the Project.
Renewable Portfolios Standard (50% by 2050)	N/A	This measure does not apply to the Project.
Senate Bill 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	This measure does not apply to the Project.
Water Sector		
Water Use Efficiency	W-1	This measure does not apply to the Project.
Water Recycling	W-2	This measure does not apply to the Project.
Water System Energy Efficiency	W-3	This is applicable for the transmission and treatment of water, but it is not applicable for the Project.
Reuse Urban Runoff	W-4	This measure does not apply to the Project.
Renewable Energy Production	W-5	This is applicable for wastewater treatment systems. It is not applicable for the Project.
Green Buildings		
1. State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	This measure does not apply to the Project.
2. Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	This measure does not apply to the Project.

Table 3.8-3
Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
3. Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	This measure does not apply to the Project.
4. Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	This is applicable for existing buildings only and is not applicable to the Project.
Industry Sector		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	This is not applicable to the Project.
Oil and Gas Extraction GHG Emission Reduction	I-2	This is not applicable to the Project.
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	This is not applicable to the Project.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	This is not applicable to the Project.
Refinery Flare Recovery Process Improvements	I-4	This is not applicable to the Project.
Work with the Local Air Districts to Evaluate Amendments to Their Existing Leak Detection and Repair Rules for Industrial Facilities to Include Methane Leaks	I-5	This is not applicable to the Project.
Recycling and Waste Management Sector		
Landfill Methane Control Measure	RW-1	This is not applicable to the Project.
Increasing the Efficiency of Landfill Methane Capture	RW-2	This is not applicable to the Project.
Mandatory Commercial Recycling	RW-3	This measure does not apply to the Project.
Increase Production and Markets for Compost and Other Organics	RW-3	This measure does not apply to the Project.
Anaerobic/Aerobic Digestion	RW-3	This measure does not apply to the Project.
Extended Producer Responsibility	RW-3	This is not applicable to the Project.
Environmentally Preferable Purchasing	RW-3	This is not applicable to the Project.
Forests Sector		
Sustainable Forest Target	F-1	This is not applicable to the Project.
High GWP Gases Sector		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	This is not applicable to the Project.
SF ₆ Limits in Non-Utility and Non-Semiconductor Applications	H-2	This is not applicable to the Project.
Reduction of Perfluorocarbons in Semiconductor Manufacturing	H-3	This is not applicable to the Project.

Table 3.8-3
Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Limit High GWP Use in Consumer Products	H-4	This measure does not apply to the Project.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	This measure does not apply to the Project.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	This is not applicable to the Project.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	This is not applicable to the Project.
SF ₆ Leak Reduction Gas Insulated Switchgear	H-6	This is not applicable to the Project.
40% Reduction in Methane and Hydrofluorocarbon (HFC) Emissions	N/A	This is not applicable to the Project.
50% Reduction in Black Carbon Emissions	N/A	This is not applicable to the Project.
Agriculture Sector		
Methane Capture at Large Dairies	A-1	This is not applicable to the Project.

Source: CARB 2008, 2017.

Notes: GHG = greenhouse gas; N/A = not applicable; GWP = global warming potential; UCSD = University of California, Santa Barbara; GSD = Goleta Sanitary District; SF₆ = sulfur hexafluoride

Based on the analysis in Table 9, the Project would be consistent with the applicable strategies and measures in the California Air Resources Board's Scoping Plan.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

No Impact. The project does not include any component of transportation or the use or disposal of any 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?***

No Impact. The Project would not 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 because the Project would only involve the conveyance of water through existing, permitted infrastructure.

- c) ***Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

No Impact. The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school because the Project would only involve the conveyance of water through existing, permitted infrastructure.

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

No Impact. The Project is not located on a site included on a list of hazardous materials sites compiled pursuant to California Government Code, Section 65962.5.

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

No Impact. The Project is not located within an airport land use plan or where such a plan has not been adopted within 2 miles of a public airport or public use airport.

- f) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

No Impact. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

- g) *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

No Impact. The Project would not 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, because the water conveyance infrastructure is existing.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on or off site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less than Significant with Mitigation Incorporated. The Project does not propose any activities that would result in direct impacts to water quality. However, construction of the Project would result in temporary ground-disturbing activities that have the potential to indirectly impact water quality in off-site waterways. As noted in the Biological Resources section above, Short-term indirect impacts to potential off-site jurisdictional aquatic resources may include accidental pollutant (i.e. sediment) and/or chemical discharge that may enter waterways via stormwater runoff should Project activities take place during the typical rainy season (November 1 through May 31). These short-term indirect impacts may occur during active construction, prior to backfilling and road repaving. Long-term indirect impacts to off-site jurisdictional aquatic resources are not anticipated to occur due to the nature of the Project. Following installation of the waterline, the excavation will be backfilled and the ground surface will be restored to pre-project conditions. No on-going indirect impacts will occur as a result of the Project. Implementation of **MM BIO-4** includes standard construction BMPs, which will prevent short-term indirect impacts to adjacent jurisdictional aquatic resources during construction, would reduce these potential impacts to a level below significance.

- b) *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

No Impact. The Project would not involve changes to groundwater supplies. No groundwater removal is proposed and the amount of impervious surface will not change following Project implementation. As such, there would be no impact.

- 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 or through the addition of impervious surfaces, in a manner which would:*

- i) *result in substantial erosion or siltation on or off site;*

Less than Significant with Mitigation Incorporated. As noted above, temporary ground-disturbing activities have the potential to result in erosion and siltation that may indirectly impact water quality in off-site waterways. Following completion of the ground-disturbance, the pavement will be replaced and no long-term impacts due to erosion and siltation would occur as a result of the Project. Implementation of **MM BIO-4** includes standard construction BMPs, which will prevent erosion and siltation off-site, reducing these potential impacts to a level below significance.

- ii) *substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;*

No Impact. The Project would result in temporary ground disturbance but no alterations to the local topography or changes in total impervious surfaces are proposed. There would be no alteration to the existing drainage pattern of the site, including the course of a stream or river. Moreover, there would also be no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on or off site.

- iii) *create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*

No Impact. The Project would result in only temporary ground-disturbing activities. No long-term physical changes to the environment are proposed; therefore, there would be no creation or contribution to runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

- iv) *impede or redirect flood flows?*

No Impact. The Project is not located within a Federal Emergency Management Agency (FEMA) flood zone (FEMA 2019) and is located approximately 560-feet west of Garrapata Creek and 1,060-feet east of Toro Creek. The Project does not propose any alterations that would alter floodwaters; therefore, there would be no impediments or redirection of flood flows as a result of the Project.

- d) *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

No Impact. As noted above, the Project is not located within a Federal Emergency Management Agency (FEMA) flood zone (FEMA 2019) and there is no known tsunami inundation or seiche zone hazard within or

in the immediate vicinity of the Project area (California Department of Conservation 2009). Therefore, there is no risk of pollutant release as a result of Project inundation.

- e) ***Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

Less than Significant with Mitigation Incorporated. The Water Quality Control Plan for the Central Coastal Basin (Basin Plan) lists the various beneficial uses associated with each waterway, describes the water quality that must be maintained to allow those uses, includes an implementation plan that describes the programs, plans, and actions necessary to achieve the standards established in the plan, and describes statewide and regional surveillance and monitoring programs (CCRWQCB 2019). These beneficial uses are associated with each waterway within the Basin Plan area, including Toro Creek; however, note that beneficial uses for Garrapata Creek are not included in the Basin Plan. Based on the distance from Toro Creek and Garrapata Creek, the temporary nature of the impacts, and with the implementation of **MM BIO-4**, the Project would not obstruct the implementation of the Basin Plan. Additionally, the Project would have no effect on groundwater and would in no way conflict with or obstruct any sustainable groundwater management plan.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) ***Would the project physically divide an established community?***

No Impact. The Project is located within the Santa Barbara County and the Toro Canyon Community Plan Area. The Project would use existing and permitted water conveyance infrastructure. No new or expanded facilities are proposed. The Project would not physically divide an established community.

- b) ***Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?***

No Impact. The Land Use Element of the Comprehensive Plan (Santa Barbara County 2016) and Coastal Land Use Plan (County of Santa Barbara 2014), as well as the Toro Canyon Community Plan Update (County of Santa Barbara 2004), contain policies, goals, implementation measures, and development standards that must not conflict with the Project. The Project would use existing and permitted water conveyance infrastructure, which has already been reviewed and permitted; there are no current conflicts; and there would not be future conflicts as a result of the Project.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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?*

No Impact. The Conservation Element of the Comprehensive Plan contains goals, policies, standards, and implementation measures for the conservation, development, and use of natural resources, including water and its hydraulic force, forests, soils, and rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources (County of Santa Barbara 2010). The Project proposes minor, temporary ground disturbance, which would not 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?*

No Impact. The Conservation Element of the Comprehensive Plan contains goals, policies, standards, and implementation measures for the conservation, development, and use of natural resources, including water and its hydraulic force, forests, soils, and rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources (County of Santa Barbara 2010). The Project proposes minor, temporary ground disturbance, which would not 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. It would not conflict with any policies of documents that regulate mineral resources within the Project area.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) ***Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Less-than-significant Impact. The proposed Project would replace a 100-year old 4-inch cast iron water main, service laterals, one hydrant and one air vacuum on Ocean View Avenue in Montecito, California.

Generally, federal and state agencies regulate mobile noise sources by establishing and enforcing noise standards on vehicle manufacturers. Local agencies generally regulate stationary noise sources and construction activities to protect neighboring land uses and the general public's health and welfare. Noise-related policies are usually adopted in the local government's general plan and usually regulate construction noise levels and time of operations.

Noise is defined as any unwanted sound (County of Santa Barbara 2003). Because the effects of noise accumulate over time, it is necessary to address the magnitude, frequency, and duration of sound. As such, the thresholds of significance for noise take each of these elements into account.

A brief background on the fundamentals of environmental acoustics is helpful in understanding how humans perceive various sound levels. Although extremely loud noises can cause temporary or permanent damage, the primary environmental impact of noise is annoyance. The objectionable characteristic of noise often refers to its loudness. Loudness represents the intensity of the sound wave, or the amplitude of the sound wave height measured in decibels (dB). Decibels are calculated on a logarithmic scale; thus, a 10 dB increase represents a 10-fold increase in acoustic energy or intensity, while a 20 dB increase represents a 100-fold increase in intensity. Decibels are the preferred measurement of environmental sound because of the direct

relationship between a sound's intensity and the subjective "noisiness" of it. The A-weighted decibel system (dBA) is a convenient sound measurement technique that weights selected frequencies based on how well humans can perceive them.

The range of human hearing spans from the minimal threshold of hearing (approximately 3 dBA) to that level of noise that is past the threshold of pain (approximately 120 dBA). In general, human sound perception is such that a change in sound level of three (3) dB in a normal setting (i.e., outdoors or in a structure, but not in an acoustics laboratory without background noise levels) is just noticeable, while a change of 5 dB is clearly noticeable. A change of 10 dB is perceived as a doubling (or halving) of sound level. Noise levels are generally considered low when they are below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss if exposure is sustained. Examples of low daytime noise levels are those observed in isolated natural settings (e.g., undeveloped, open space areas) (20 dBA), and quiet suburban residential streets (43 dBA). Examples of moderate level noise environments are urban residential or semi commercial areas (55 dBA) and commercial locations (60 dBA). Although people often accept the higher levels associated with very noisy urban residential and residential-commercial zones (63 dBA), as well as industrial areas (65 to 70 dBA), these levels are nevertheless considered adverse.

Ambient environmental noise levels can be characterized by several different descriptors. Energy Equivalent or Energy Average Level (L_{eq}) describes the average or mean noise level over a specified period of time. L_{eq} provides a useful measure of the impact of fluctuating noise levels on sensitive receptors over a period of time. Other descriptors of noise incorporate a weighting system that accounts for human's susceptibility to noise irritations at night. Community Noise Equivalent Level (CNEL) is a measure of cumulative noise exposure over a 24-hour period, with a 5 dB penalty added to evening hours (7:00 p.m. to 10:00 p.m.) and a 10 dB penalty added to night hours (10:00 p.m. to 7:00 a.m.). Day/Night Average Noise Level (L_{dn}) is essentially the same as CNEL, with the exception that the evening penalty is dropped.

The ambient noise level near the proposed Project site is considered low. Vehicular traffic on Ocean View Avenue is the predominant source of noise throughout the Project area. Existing condition noise levels were not documented to establish the Project areas baseline condition. The closest noise-sensitive receptor to the proposed Project are existing residences, located approximately 50 feet from the Project boundaries.

Construction Noise

With the noise sources identified above, a noise analysis was performed using a model developed under the auspices of the Federal Highway Administration (FHWA) called the Roadway Construction Noise Model (RCNM) (FHWA 2008). Input variables for RCNM consist of the receiver / land use types, the equipment type (i.e., backhoe, crane, truck, etc.), the number of equipment pieces, the duty cycle for each piece of equipment (i.e., percentage of time the equipment is typically operated during any given time period), and the distance between the construction equipment and the noise-sensitive receiver (i.e., residence).. The reader is referred to Appendix B for the inputs used in the RCNM model, as well as results.

The various construction equipment types and quantities (as described above) were used for this analysis. The RCNM has default duty cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty cycle values were utilized for this analysis.

No topographical or structural shielding was assumed in the modeling of construction noise (i.e., the receivers are modelled with no obstacles to the travel of sound between the construction activity and receiver location, a worst-case assumption). The noise levels from the proposed construction activities are

summarized in Table 10 (Construction Noise Model Results Summary). The complete set of RCNM input and output data for construction noise is provided in Appendix B.

Table 3.13-1
Construction Noise Model Results Summary

Receiver	Source / Receiver Distances (feet)	Construction Phase Noise Levels (dBA L _{EQ})		
		Excavation	Pipe Installation and Backfill	Paving
Nearest Residences	Nearest: 50	79	85	80

Notes: dBA = A-weighted decibels; L_{EQ} = equivalent sound level, L_{MAX} = maximum sound level

As shown in Table 10, at the nearest residences, noise levels would range from approximately 79 to 85 dBA L_{EQ} when construction is taking place at or near the Project boundary. Short-term noise associated with construction could result in noise levels in excess of 85 dBA measured 50 feet from the noise source. Noise attenuation occurs over distance at a rate of 6 dBA each time the distance from the source is doubled. Therefore, at a distance of 1,600 feet from the source of the noise, noise attenuation would reduce typical construction-related noise levels from 95 dBA to 65 dBA; since 65 dBA is the limit of acceptable noise for sensitive land uses such as residences, lodging, and hospitals, construction noise generally would not significantly affect land uses at a distance greater than 1,600 feet from the construction noise source. However, within 1,600 feet of the proposed Project site, there are existing residences. As such, Project generated construction noise could pose a potentially significant temporary (short-term) effect on such noise-sensitive receptors. For this reason, mitigation for short-term construction noise is required (refer to Mitigation section below).

Average noise levels from construction activities may be annoying since levels are expected to be higher than the ambient noise level in the site vicinity. This is particularly true for the closest single-family homes surrounding the project site. However, restricting construction activities to the daytime period (in accordance with noise ordinance requirements) would avoid disruption of evening relaxation and overnight sleep periods. Based upon the above discussion, short-term construction noise **would be considered less than significant with mitigation.**

Operational Noise

The proposed Project consists of the replacement of an existing 100-year-old cast iron water main buried beneath Ocean View Avenue. Once the replacement is complete, operation of the new water main would not involve any noise which is perceptible above ground. Therefore, operational noise Impacts **would be less than significant.**

Mitigation Measures

MM Noise-1 Construction Noise. Construction activity for site preparation and for future development shall be limited to the hours between 7:00 a.m. and 4:00 p.m., Monday through Friday. No construction shall occur on State holidays (e.g., Thanksgiving, Labor Day). Construction equipment maintenance shall be limited to the same hours. Non-noise generating construction activities such as interior painting are not subject to these restrictions.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-significant impact. The main concern associated with ground-borne vibration is annoyance, however, in extreme cases, vibration can cause damage to buildings, particularly those that are old or otherwise fragile. Some common sources of ground-borne vibration are trains, and construction activities such as blasting, pile-driving, and heavy earth-moving equipment. The primary source of ground-borne vibration occurring as part of the proposed Project would be short-term construction activity.

Groundborne vibration information related to construction activities has been collected by Caltrans (Caltrans 2013b). Information from Caltrans indicates that transient vibrations (such as construction activity) of approximately 0.035 inch per second (in/sec) peak particle velocity (PPV) may be characterized as barely perceptible, and vibration levels of 0.24 in/sec PPV may be characterized as distinctly perceptible by persons. Caltrans identifies a threshold for structural building damage, which typically occurs at vibration levels of 0.5 in/sec PPV or greater for buildings of reinforced-concrete, steel, or timber construction, or 0.2 in/sec PPV for typical residential construction.

The most important equipment relative to generation of vibration, and the vibration levels produced by such equipment, is illustrated in Table 11. Loaded trucks would produce the highest level of vibration for the proposed Project (bulldozers and drill augers would not be employed).

Table 3.13-2
Vibration Velocities for Typical Construction Equipment

Equipment	PPV at 25 Feet (Inches Per Second)
Large Bulldozer	0.089
Loaded Trucks	0.076
Drill Rig / Auger	0.089
Jackhammer	0.035
Small Bulldozer	0.003

Source: Caltrans 2013(b).

As shown in Table 13.3-2, a loaded truck generates vibration levels of 0.076 in/sec PPV at a distance of 25 feet. The nearest residences to the Project site would be approximately 50 feet from ground disturbance, and could experience vibration levels of 0.027 inches per second PPV. Vibration levels at these receptors would not exceed the Caltrans building damage threshold of 0.2 inches per second PPV. These vibration levels would be below the level considered barely perceptible to persons (0.035 in/sec PPV), and therefore should generally not be discernible to area residents. While some persons particularly sensitive to vibration may perceive some vibration episodes during certain construction activities, vibration levels would not be anticipated to reach annoyance levels for residents along the Project alignment. Groundborne vibration would not be associated with the proposed Project following construction activities. Impacts related to groundborne vibration **would be less than significant**. No mitigation is required.

- c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No impact. The Project site is not located within 2 miles of an airport; the closest airport is Santa Barbara airport, approximately 15 miles west of the Project site. Therefore, workers would not be exposed to elevated noise levels from aircraft operation and **airport noise impacts would not occur.**

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

No Impact. The Project would include the replacement of existing water conveyance facilities and serves the existing water use of the MWD. The replacement waterline increases the size of the previous line from a 4-inch diameter pipe to a 6-inch diameter pipe, thereby expanding the total capacity of the waterline. Although the capacity of the waterline would be increased, the Project would continue to serve existing residential uses and ensure water supply reliability and critical fire protection. The Project would not be growth inducing in the immediate or proximal areas, either directly or indirectly.

- b) *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The Project would include the replacement of existing water conveyance facilities. There would be no displacement of any population, and the Project would not necessitate the construction of replacement housing. There would be no impact on either temporary or permanent populations.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Fire protection?

No Impact. The Project would include the replacement of existing water conveyance facilities. The replacement waterline would provide an improvement in fire protection capabilities due to the increase in size from a 4-inch diameter pipe to a 6-inch diameter pipe. The population would not be impacted by the Project. The Santa Barbara County and the Montecito Fire Protection District personnel would provide fire protection. No new personnel would be required.

Police protection?

No Impact. The Project would include the replacement of existing water conveyance facilities. Population would not be impacted by the Project. The Santa Barbara County Sheriff's Department would provide police protection. No new personnel would be required.

Schools?

No Impact. The Project would include the replacement of existing water conveyance facilities. The population would not be impacted by the Project. No new personnel would be required.

Parks?

No Impact. The Project would include the replacement of existing water conveyance facilities. The population would not be impacted by the Project; therefore, there would be no need for more parks.

Other public facilities?

No Impact. The Project would include the replacement of existing water conveyance facilities. No construction would occur, and the population would not be impacted by the Project; therefore, no public facilities would be impacted.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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?***

No Impact. The Project would include the replacement of existing water conveyance facilities. The population would not be impacted by the Project; therefore, there would be no increase in 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?***

No Impact. The Project would include the replacement of existing water conveyance facilities. No changes to existing recreational facilities would occur and no new recreational facilities would be constructed.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) *Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

Less than Significant Impact. The proposed Project would generate construction-related traffic during replacement of a water main, service lateral, one hydrant and one air vacuum valve on Ocean View Avenue, between Serena Avenue and its northerly terminus at a private driveway. Ocean View Avenue is a two-lane, non-circulation element roadway that provides access to residential properties along both sides via the Ocean View Avenue/Serena Avenue stop-controlled intersection. There are no marked transit, bicycle or pedestrian facilities along this segment of Ocean View Avenue.

Based on construction phasing and schedule, the construction activities would occur over a 15-day period and would have three phases. Excavation, pipe installation and backfill, and paving activities would overlap and would require approximately 12 workers and 8 trucks per day. The construction activities will occur in one shift of approximately 8 hours between 7:00 am and 4:00 pm over the weekdays, Monday through Friday.

Construction-related traffic would be short-term and would cause a nominal increase in vehicle trips associated with workers commuting to and from the site and trucks delivering material or equipment. The proposed Project would not make any changes to the circulation system and would occasionally add a nominal amount of daily or peak-hour vehicle trips as part of permanent operations or maintenance. The proposed Project would not decrease roadway capacity, generate additional traffic or change traffic patterns that could cause an impact to the circulation system including transit, roadway, bicycle, and pedestrian facilities. Therefore, the proposed Project would not conflict with adopted policies, plans, or programs regarding transit, bicycle, and pedestrian facilities, and impacts would be less than significant.

b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Less than Significant Impact. CEQA Guidelines Section 15064.3, subdivision (b), focuses on specific criteria (vehicle miles traveled (VMT)), for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The proposed Project is a water main replacement that would generate temporary construction-related traffic and nominal maintenance traffic. This project would be categorized under subdivision (b)(3), qualitative analysis. Subdivision (b)(3) recognizes that lead agencies may not be able to quantitatively estimate VMT for every project type. In those circumstances, this subdivision encourages lead agencies to evaluate factors such as the availability of transit, proximity to other destinations, and other factors that may affect the amount of driving required by the Project.

As described previously, construction of the proposed Project would result in a nominal increase in local traffic as a result of construction-related worker traffic, material and equipment deliveries, and construction activities. VMT generated from construction-related traffic would cease once construction is completed, and VMT levels would return to pre-project conditions. Therefore, vehicle miles generated from construction traffic would be temporary and short term. The proposed Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Impacts would be less than significant.

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

Less than Significant Impact: The proposed Project would not include any new roadway design features, nor would it include any geometric design features; no sharp curves or dangerous intersections are proposed. However, construction would involve digging a trench within the existing right-of-way to install the water main; therefore, passage of vehicles along Ocean View Avenue could be delayed or impeded for a short duration at certain times. During construction, measures such as use of steel plates over trenches would allow vehicles to pass safely and access adjacent residences along Ocean View Avenue. Upon completion, the Project would return the roadway to existing or pre-project conditions. Therefore, the proposed Project would not substantially increase hazards due to a roadway design feature or incompatible uses. Impacts would be less than significant.

d) *Would the project result in inadequate emergency access?*

Less than Significant Impact with Mitigation Incorporated: Since Ocean View Avenue is the only access roadway to the residential properties along it, the construction of the proposed Project would require implementation of appropriate traffic control measures to facilitate safe passage of road users and emergency vehicles at all times. The trenches would be covered with steel plates in the event of an emergency to allow vehicles to drive through the work area and during nighttime, which would ensure the Project does not prevent emergency access to adjacent properties. This is a short-term construction related impact that would cease once construction is completed. No changes to the existing street system are proposed that could result in inadequate emergency access post-construction of the Project. Therefore, impacts to emergency access during construction would be less than significant with mitigation incorporated.

Mitigation Measures

MM TRA-1 **Traffic Control Measures:** The contractor shall implement the following measures to facilitate access to properties along Ocean View Avenue during construction of the proposed Project:

- The contractor shall notify the local emergency services prior to construction to inform them of the proposed construction schedule and scope of work.
- The contractor shall provide for passage of emergency vehicles through the proposed Project and shall maintain access to all adjacent residential properties at all times by using measures such as covering the trenches with steel plates.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- 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)?*

Less Than Significant Impact. No previously recorded archaeological resources of Native American origin or TCRs listed in the CRHR or a local register were identified within the proposed Project site through the CCIC records or Native American coordination. Further, no TCRs have been identified by California Native American tribes as part of the MWD's Assembly Bill (AB) 52 notification and consultation process. Therefore, the proposed Project would not adversely affect tribal cultural resources that are listed or eligible for listing in the state or local register. Impacts would be less than significant. No mitigation is required.

- b) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

Less Than Significant with Mitigation Incorporated. There are no resources in the Project site that have been determined by MWD to be significant pursuant to the criteria set forth in Public Resources Code Section 5024.1. Further, no specific tribal cultural resources were identified in the Project site by the NAHC, by California Native American tribes, or by MWD as part of the AB 52 notification and consultation process. On October 8, 2019, MWD sent notification of the proposed Project to all California Native American tribal representatives that have requested project notifications from MWD pursuant to AB 52 and that are on file with the NAHC as being traditionally or culturally affiliated with the geographic area.

Table 3.18-1 Assembly Bill 52 Native American Tribal Outreach Results

Native American Tribal Representatives	Method of Notification/Date	Response Received
Santa Ynez Band of Chumash Indians Kenneth Kahn, Chairperson	Certified Mail on October 8, 2019; Email sent October 10, 2019	10/28/19 - Response from the Tribal Elders' Council Governing Board, via, Susan Arakawa, does not request further consultation unless project changes; offer to provide Native American monitoring
Barbareño/Ventureño Band of Mission Indians Julie Tumamait-Stenslie, Chairperson	Certified Mail on October 8, 2019; Email sent October 10, 2019; follow up phone call was made on October 24, 2019	No response to date
Barbareño/Ventureño Band of Mission Indians Patrick Tumamait	Certified Mail on October 8, 2019; MWD received phone call from Mr. Tumamait on October 11, 2019 requesting consultation. Formal consultation occurred via phone on November 18, 2019	Mr. Tumamait requested involvement at each step of construction involving ground disturbance and would like to provide the monitoring
Coastal Band of the Chumash Nation Gino Altamirano, Chairperson	Certified Mail on October 8, 2019; Email sent October 10, 2019; follow up phone call was made on October 24, 2019	No response to date
Barbareño/Ventureño Band of Mission Indians Eleanor Arrellanes	Certified Mail on October 8, 2019; MWD received phone call from Ms. Arrellanes on November 7, 2019 requesting consultation. Formal consultation occurred via phone on November 19, 2019	Ms. Arrellanes requested involvement at each step of construction involving ground disturbance and suggests monitoring occur by qualified archaeologist and Native American monitor ancestrally affiliated with the area
Barbareño/Ventureño Band of Mission Indians Raudel Banuelos	Certified Mail on October 8, 2019; No email available; follow up phone call was made on October 24, 2019	No response to date
Chumash Council of Bakersfield Julio Quair, Chairperson	Certified Mail on October 8, 2019; Email sent October 10, 2019; follow up phone call was made on October 24, 2019	No response to date
Northern Chumash Tribal Council Fred Collins, Spokesperson	Certified Mail on October 8, 2019; Email sent October 10, 2019	10/19/19 - out of jurisdiction; defers to local tribal government

Table 3.18-1 Assembly Bill 52 Native American Tribal Outreach Results

Native American Tribal Representatives	Method of Notification/Date	Response Received
San Luis Obispo County Chumash Council Mark Vigil, Chief	Certified Mail on October 8, 2019; No email available; follow up phone call was made on October 24, 2019	No response to date
yak tityu tityu yak tilhini - Northern Chumash Tribe Mona Tucker, Chairperson	Certified Mail on October 8, 2019; Email sent October 10, 2019; follow up phone call was made on October 24, 2019	No response to date

Due to the absence of previously recorded tribal cultural resources within the Project site and because no specific tribal cultural resources have been identified by California Native American tribes through the AB 52 consultation process, MWD has determined that no known tribal cultural resources are present in the Project site. However, consultation between MWD and Mr. Tumamait and Ms. Arrellanes suggests that there is some potential for unknown subsurface tribal cultural resources to be impacted by the Project. In the event that unknown subsurface tribal cultural resources are uncovered during construction ground disturbance, and such resources are not identified and avoided or properly treated, a potentially significant impact could result. As such, mitigation measure **MM-TCR-1** has been set forth to protect tribal cultural resources, in the event that any are discovered during Project construction. Upon implementation of **MM-TCR-1**, impacts would be less than significant with mitigation incorporated.

Mitigation Measures

MM-TCR-1 Inadvertent Discovery of Tribal Cultural Resources. While no tribal cultural resources (TCRs) have been identified that may be affected by the Project, the following approach for the inadvertent discovery of TCRs has been prepared to ensure there are no impacts to unanticipated resources. Should a potential TCR be encountered, construction activities near the encounter shall be temporarily halted within 50 feet of the discovery and the MWD shall notify the California Native American tribes consulting under Assembly Bill (AB) 52. If the potential resource is archaeological in nature, appropriate management requirements shall be implemented as outlined in Mitigation Measure **MM-CUL-4**. If MWD determines that the potential resource is a TCR (as defined by PRC, Section 21074), tribes consulting under AB 52 shall be provided a reasonable period of time, typically 5 days from the date that a new discovery is made, to conduct a site visit and make recommendations regarding future ground disturbance activities as well as the treatment and disposition of any discovered TCRs. Depending on the nature of the resource and tribal recommendations, review by a qualified archaeologist may be required. Implementation of proposed recommendations will be made based on the determination of MWD that the approach is reasonable and feasible. All activities shall be conducted in accordance with regulatory requirements.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) ***Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

Less than Significant with Mitigation Incorporated. The Project would include the replacement of existing potable water conveyance facilities. The replacement waterline would be located in the same alignment as the existing waterline and increased in size from a 4-inch diameter pipe to a 6-inch diameter pipe, increasing the total capacity of the waterline for water supply reliability and fire protection benefits. The Project would take place within a paved street and would require temporary ground disturbance to install the replacement waterline. As noted within this document, potential impacts may occur in the following areas: biological and cultural resources, hydrology and water quality, geology and soils, transportation and Tribal Cultural Resources; however, these potential impacts will be mitigated to a level below significance through the implementation of **MM BIO-1-4**, **MM CUL-1-5**, **MM Noise-1** and **MM TRA-1**.

- b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?*

No Impact. The Project would include the replacement of existing potable water conveyance facilities serving existing customers. The replacement waterline would be located in the same alignment as the existing waterline and increased in size from a 4-inch diameter pipe to a 6-inch diameter pipe, increasing the total capacity of the waterline. The Project would have no effect on water supplies other than to increase reliability and fire protection.

- c) *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?*

No Impact. The Project would include the replacement of existing infrastructure conveying potable water. There is no wastewater component to the Project.

- d) *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

No Impact. The Project would include the replacement of existing infrastructure conveying potable water. There is no solid waste component to the Project.

- e) *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

No Impact. The Project would include the replacement of existing infrastructure conveying potable water. There is no solid waste component to the Project.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) ***Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?***

No Impact. The Toro Canyon Plan (County of Santa Barbara 2004) notes that no official evacuation routes in the Plan Area have been designated by the County Office of Emergency Services and the Santa Barbara Operational Area Emergency Management Plan (County of Santa Barbara 2013). The 2017 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan (County of Santa Barbara 2017) does not provide specific emergency management plans for the vicinity of the Project. The Project would include the replacement of existing potable water conveyance facilities within an existing paved street, which may temporarily slow vehicle travel within the Project area. Project activities will not, however, fully impede traffic flow and residents will be able to evacuate in the event of an emergency.

b) ***Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

No Impact. The Project would include the replacement of existing potable water conveyance facilities within an existing paved street. Based on the 2017 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan (County of Santa Barbara 2017), the Project area is located within the wildland-urban interface zone. Due to the location of the Project in a residential setting and the temporary nature of the impacts, the Project will not exacerbate wildfire risks or the uncontrolled spread of wildfire.

c) ***Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***

No Impact. The Project would include the replacement of existing potable water conveyance facilities within an existing paved street. No additional infrastructure will be constructed in association with the Project.

- d) *Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

No Impact. The Project would include the replacement of existing potable water conveyance facilities within an existing paved street. All impacts will be temporary and no permanent changes to the local topography or drainage would occur.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Less than Significant with Mitigation Incorporated. As described above, the Project will take place completely within a residential setting and direct impacts will be limited to excavation within a paved road. No native habitat is present within or in the immediate vicinity of the Project site; however, individual native trees including coast live oak trees are present in private residential lots. No individual special-status plant

species are expected to occur due to the developed condition of the Project area. Potential impacts to individual coast live oak trees can be reduced to a level below significance through the implementation of **MM BIO-1**. Special-status wildlife species that may occur within the Project area include Cooper's hawk and white-tailed kite, along with nesting birds. Bird nests with eggs or young of all migratory bird species are protected under the Migratory Bird Treaty Act and the California Fish and Game Code. The potential loss of an active nest resulting from construction activities would be in conflict with these regulations. Impacts to nesting birds is considered potentially significant. Short-term indirect impacts can be reduced to a level below significance through the implementation of mitigation measure Mitigation Measures **BIO-2** and **BIO-3**. Potential impacts to state or federally protected wetlands and waterways, including impacts to water quality, may occur as a result of erosion during active construction; however, **MM BIO-4** includes standard construction BMPs, which will prevent erosion and siltation from impacting off-site waters, reducing these potential impacts to a level below significance.

Potential impacts to California history or prehistory have been identified. However, with the implementation of Mitigation Measures **MM CUL-1-4** and **MM TCR-1**, the residual level will be reduced to less than significant. Based on the results provided in Section 3.5, the potential of encountering and impacting unknown archaeological resources, including human remains during project implementation is moderate to high. If such unanticipated discoveries were encountered, impacts to encountered resources could be potentially significant. In order to ensure that all Project personnel are aware of the cultural sensitivity of the Project site, a workers environmental awareness program (WEAP) training will be required to be implemented under **MM-CUL-1** to ensure early identification and response to inadvertent prehistoric and historical-era resources. In order to further ensure that impacts to unanticipated archaeological resources area appropriately avoided **MM-CUL-2** provides for preparation of an archaeological monitoring and inadvertent discovery plan. Archaeological monitoring under **MM-CUL-3** will occur in all areas with potential to encounter archaeological resources. In the event of an inadvertent discovery of an archaeological resource, a resource-specific management plan will be appropriately developed and implemented to ensure any potential adverse change to this resource is appropriately addressed under CEQA as defined under **MM-CUL-4**. Therefore, impacts to archaeological resources would be less than significant with **MM-CUL-1** through **MM-CUL-4** incorporated. The discovery of human remains would require handling in accordance with Public Resources Code 5097.98, which states that in the event that human remains are discovered during construction, construction activity shall be halted and the area shall be protected until consultation and treatment can occur as prescribed by law. As such, with the implementation of mitigation measure **MM-CUL-5**, which provides direction in the event of discovery of human remains per Section 7050.5 of the California Health and Safety Code, impacts would be less than significant with mitigation incorporated.

While no tribal cultural resources (TCRs) have been identified that may be affected by the Project, the following approach for the inadvertent discovery of TCRs has been prepared to ensure there are no impacts to unanticipated resources. Should a potential TCR be encountered, construction activities near the encounter shall be temporarily halted within 50 feet of the discovery and the MWD shall notify the California Native American tribes consulting under Assembly Bill (AB) 52. If the potential resource is archaeological in nature, appropriate management requirements shall be implemented as outlined in Mitigation Measure **MM-CUL-4**. If MWD determines that the potential resource is a TCR (as defined by PRC, Section 21074), tribes consulting under AB 52 shall be provided a reasonable period of time, typically 5 days from the date that a new discovery is made, to conduct a site visit and make recommendations regarding future ground disturbance activities as well as the treatment and disposition of any discovered TCRs. Depending on the nature of the resource and tribal recommendations, review by a qualified archaeologist may be required.

Implementation of proposed recommendations will be made based on the determination of MWD that the approach is reasonable and feasible. All activities shall be conducted in accordance with regulatory requirements. **MM-TCR-1** will ensure that any potential Inadvertent Discovery of Tribal Cultural Resources will be mitigated to less than significant impacts with its implementation.

- 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)?*

No Impact. The Project would not result in any cumulatively considerable impacts.

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

No Impact. The Project would not cause substantial adverse effects on human beings, either indirectly or directly.

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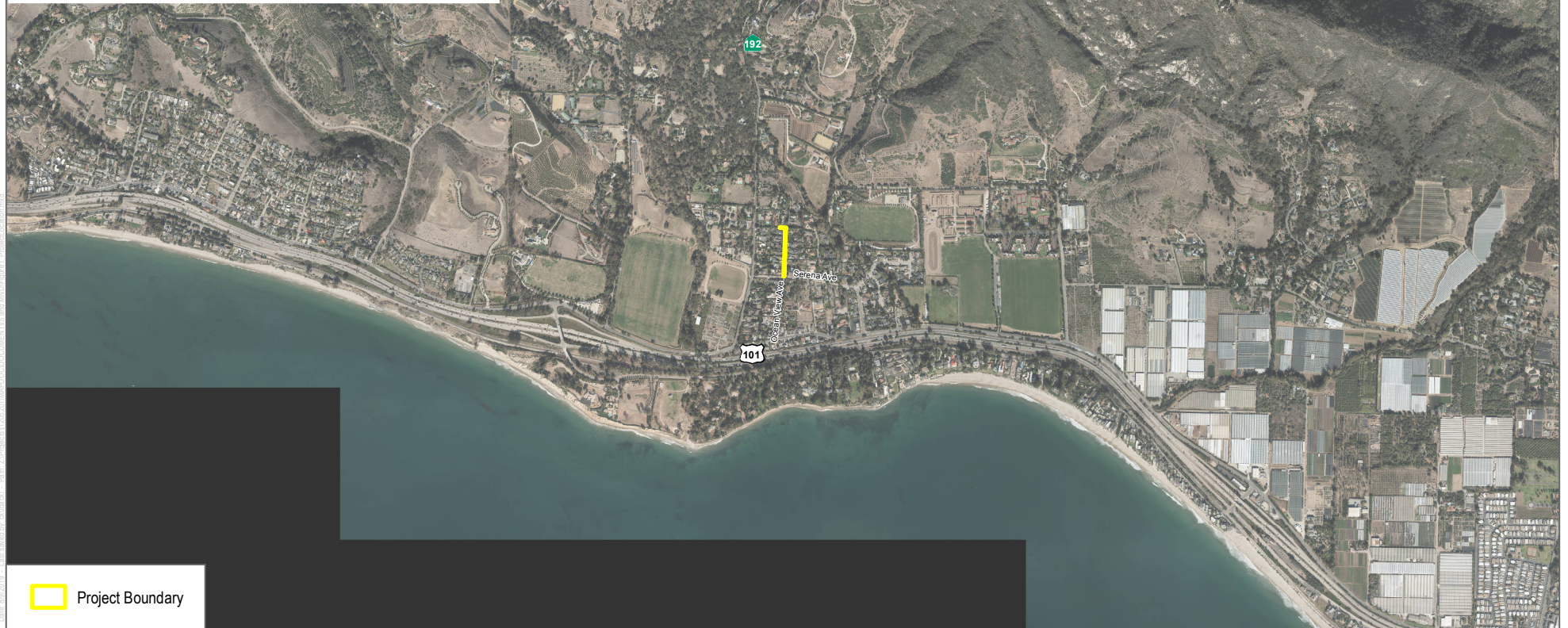
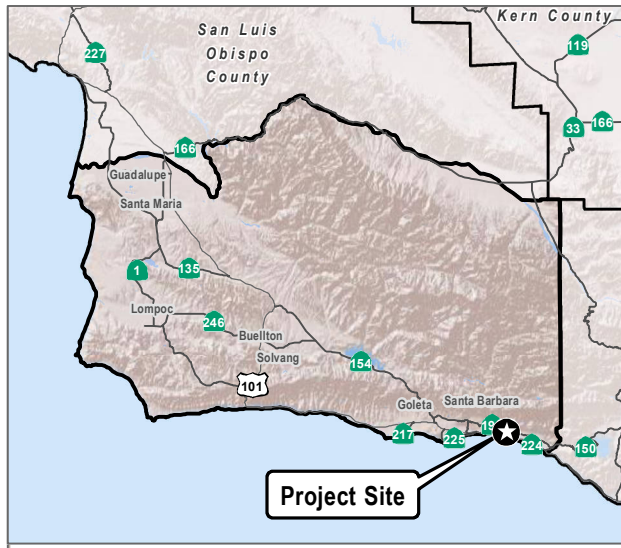
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4.2 List of Preparers

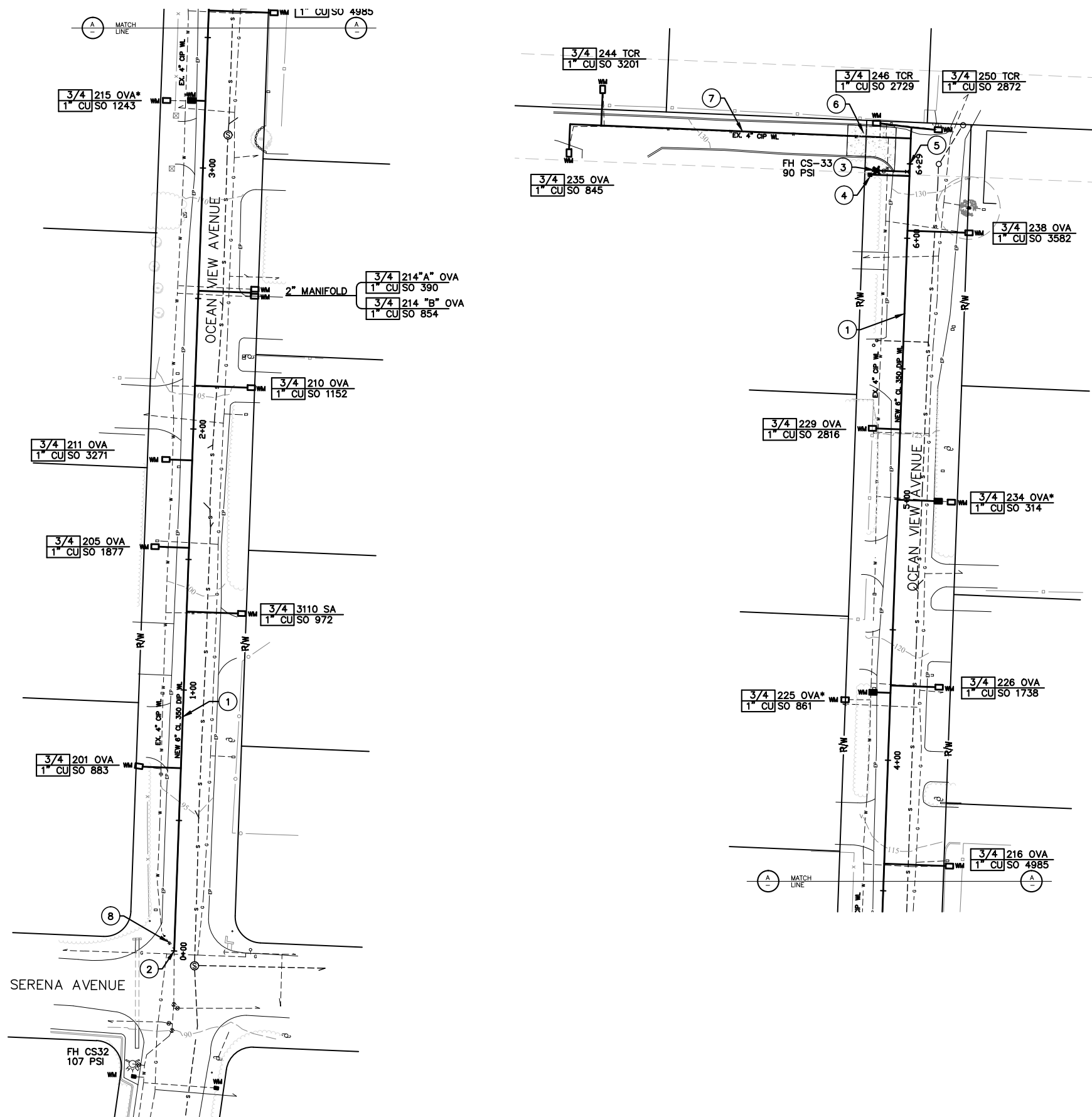
This IS/MND was prepared by Dudek including Senior Project Manager Jane Gray, Environmental Specialist Adam Poll, Geologist Perry Russell, Biologist Randall McInvale, Archaeologist Heather McDaniel McDevitt, Analyst Ryan Munnikuis, and GIS Analyst Carrie Kubacki.



SOURCE: CIRGIS 2017

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SOURCE: Montecito Water District 2019

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Appendix A

Air Quality and Greenhouse Gas Emissions Data

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MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Annual

MWD Ocean Avenue Project
Santa Barbara-South of Santa Ynez Range County, Annual**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	37
Climate Zone	8			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Annual

Project Characteristics - Based on MWD provided information.

Land Use - Land use surrogate only, construction only, no operation.

Construction Phase - Based on MWD provided information.

Off-road Equipment - Based on MWD provided information.

Off-road Equipment - Based on MWD provided information.

Off-road Equipment - Based on MWD provided information.

Trips and VMT - Based on MWD provided information.

On-road Fugitive Dust - CalEEMod defaults.

Vehicle Trips - Construction only.

Consumer Products - Construction only.

Area Coating - Construction only.

Landscape Equipment - Construction only.

Energy Use - Construction only.

Water And Wastewater - Construction only.

Solid Waste - Construction only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	5.00	3.00
tblConstructionPhase	NumDays	100.00	8.00
tblConstructionPhase	PhaseEndDate	11/14/2019	11/6/2019
tblConstructionPhase	PhaseEndDate	4/14/2020	11/21/2019
tblConstructionPhase	PhaseEndDate	11/15/2019	11/18/2019

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Annual

tblConstructionPhase	PhaseStartDate	4/8/2020	11/19/2019
tblConstructionPhase	PhaseStartDate	11/15/2019	11/7/2019
tblEnergyUse	LightingElect	2.99	0.00
tblEnergyUse	NT24E	3.83	0.00
tblEnergyUse	NT24NG	6.86	0.00
tblEnergyUse	T24E	1.63	0.00
tblEnergyUse	T24NG	14.04	0.00
tblOffRoadEquipment	HorsePower	80.00	31.00
tblOffRoadEquipment	HorsePower	97.00	93.00
tblOffRoadEquipment	HorsePower	97.00	93.00
tblOffRoadEquipment	HorsePower	158.00	41.00
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tblOffRoadEquipment	PhaseName		Excavation
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tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Excavation
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	28.00

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Annual

tblTripsAndVMT	HaulingTripNumber	0.00	24.00
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tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	8.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblTripsAndVMT	WorkerTripNumber	18.00	8.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

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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	2.4400e-003	0.0277	0.0212	5.0000e-005	9.5000e-004	1.1400e-003	2.0900e-003	2.6000e-004	1.0500e-003	1.3100e-003	0.0000	4.8581	4.8581	8.4000e-004	0.0000	4.8791
Maximum	2.4400e-003	0.0277	0.0212	5.0000e-005	9.5000e-004	1.1400e-003	2.0900e-003	2.6000e-004	1.0500e-003	1.3100e-003	0.0000	4.8581	4.8581	8.4000e-004	0.0000	4.8791

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	2.4400e-003	0.0277	0.0212	5.0000e-005	9.5000e-004	1.1400e-003	2.0900e-003	2.6000e-004	1.0500e-003	1.3100e-003	0.0000	4.8581	4.8581	8.4000e-004	0.0000	4.8791
Maximum	2.4400e-003	0.0277	0.0212	5.0000e-005	9.5000e-004	1.1400e-003	2.0900e-003	2.6000e-004	1.0500e-003	1.3100e-003	0.0000	4.8581	4.8581	8.4000e-004	0.0000	4.8791

[illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

[illegible]

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Annual

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						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

	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
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	Excavation	Trenching	11/1/2019	11/6/2019	5	4	
2	Pipe Installation and Backfill	Building Construction	11/7/2019	11/18/2019	5	8	
3	Paving	Paving	11/19/2019	11/21/2019	5	3	

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Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pipe Installation and Backfill	Cranes	0	4.00	231	0.29
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Excavation	Concrete/Industrial Saws	0	8.00	81	0.73
Pipe Installation and Backfill	Forklifts	0	6.00	89	0.20
Excavation	Excavators	1	8.00	41	0.38
Pipe Installation and Backfill	Graders	0	8.00	187	0.41
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	1	8.00	31	0.38
Excavation	Rubber Tired Dozers	0	1.00	247	0.40
Excavation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	93	0.37
Pipe Installation and Backfill	Tractors/Loaders/Backhoes	1	8.00	93	0.37

Trips and VMT

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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
Excavation	1	8.00	2.00	28.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Installation and Backfill	5	8.00	2.00	24.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	8.00	0.00	8.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Excavation - 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	3.5000e-004	2.3100e-003	2.5300e-003	0.0000		1.4000e-004	1.4000e-004		1.3000e-004	1.3000e-004	0.0000	0.2677	0.2677	8.0000e-005	0.0000	0.2698
Total	3.5000e-004	2.3100e-003	2.5300e-003	0.0000		1.4000e-004	1.4000e-004		1.3000e-004	1.3000e-004	0.0000	0.2677	0.2677	8.0000e-005	0.0000	0.2698

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3.2 Excavation - 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	1.4000e-004	4.6700e-003	1.3500e-003	1.0000e-005	2.4000e-004	3.0000e-005	2.6000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.1077	1.1077	1.0000e-004	0.0000	1.1101
Vendor	2.0000e-005	4.9000e-004	1.8000e-004	0.0000	2.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0938	0.0938	1.0000e-005	0.0000	0.0940
Worker	6.0000e-005	5.0000e-005	4.3000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0833	0.0833	0.0000	0.0000	0.0834
Total	2.2000e-004	5.2100e-003	1.9600e-003	1.0000e-005	3.6000e-004	3.0000e-005	3.9000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.2847	1.2847	1.1000e-004	0.0000	1.2874

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	3.5000e-004	2.3100e-003	2.5300e-003	0.0000		1.4000e-004	1.4000e-004		1.3000e-004	1.3000e-004	0.0000	0.2677	0.2677	8.0000e-005	0.0000	0.2698
Total	3.5000e-004	2.3100e-003	2.5300e-003	0.0000		1.4000e-004	1.4000e-004		1.3000e-004	1.3000e-004	0.0000	0.2677	0.2677	8.0000e-005	0.0000	0.2698

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3.2 Excavation - 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	1.4000e-004	4.6700e-003	1.3500e-003	1.0000e-005	2.4000e-004	3.0000e-005	2.6000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	1.1077	1.1077	1.0000e-004	0.0000	1.1101
Vendor	2.0000e-005	4.9000e-004	1.8000e-004	0.0000	2.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0938	0.0938	1.0000e-005	0.0000	0.0940
Worker	6.0000e-005	5.0000e-005	4.3000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0833	0.0833	0.0000	0.0000	0.0834
Total	2.2000e-004	5.2100e-003	1.9600e-003	1.0000e-005	3.6000e-004	3.0000e-005	3.9000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.2847	1.2847	1.1000e-004	0.0000	1.2874

3.3 Pipe Installation and Backfill - 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	8.9000e-004	8.9600e-003	8.8300e-003	1.0000e-005		6.0000e-004	6.0000e-004		5.5000e-004	5.5000e-004	0.0000	1.0700	1.0700	3.4000e-004	0.0000	1.0784
Total	8.9000e-004	8.9600e-003	8.8300e-003	1.0000e-005		6.0000e-004	6.0000e-004		5.5000e-004	5.5000e-004	0.0000	1.0700	1.0700	3.4000e-004	0.0000	1.0784

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3.3 Pipe Installation and Backfill - 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	1.2000e-004	4.0100e-003	1.1500e-003	1.0000e-005	2.0000e-004	2.0000e-005	2.3000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.9494	0.9494	8.0000e-005	0.0000	0.9515
Vendor	4.0000e-005	9.7000e-004	3.5000e-004	0.0000	5.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1876	0.1876	1.0000e-005	0.0000	0.1879
Worker	1.1000e-004	1.0000e-004	8.6000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1666	0.1666	1.0000e-005	0.0000	0.1667
Total	2.7000e-004	5.0800e-003	2.3600e-003	1.0000e-005	4.5000e-004	3.0000e-005	4.8000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	1.3036	1.3036	1.0000e-004	0.0000	1.3062

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	8.9000e-004	8.9600e-003	8.8300e-003	1.0000e-005		6.0000e-004	6.0000e-004		5.5000e-004	5.5000e-004	0.0000	1.0700	1.0700	3.4000e-004	0.0000	1.0784
Total	8.9000e-004	8.9600e-003	8.8300e-003	1.0000e-005		6.0000e-004	6.0000e-004		5.5000e-004	5.5000e-004	0.0000	1.0700	1.0700	3.4000e-004	0.0000	1.0784

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3.3 Pipe Installation and Backfill - 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	1.2000e-004	4.0100e-003	1.1500e-003	1.0000e-005	2.0000e-004	2.0000e-005	2.3000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.9494	0.9494	8.0000e-005	0.0000	0.9515
Vendor	4.0000e-005	9.7000e-004	3.5000e-004	0.0000	5.0000e-005	1.0000e-005	5.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.1876	0.1876	1.0000e-005	0.0000	0.1879
Worker	1.1000e-004	1.0000e-004	8.6000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1666	0.1666	1.0000e-005	0.0000	0.1667
Total	2.7000e-004	5.0800e-003	2.3600e-003	1.0000e-005	4.5000e-004	3.0000e-005	4.8000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	1.3036	1.3036	1.0000e-004	0.0000	1.3062

3.4 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	6.4000e-004	4.8100e-003	4.8000e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.1000e-004	3.1000e-004	0.0000	0.5532	0.5532	1.8000e-004	0.0000	0.5576
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.4000e-004	4.8100e-003	4.8000e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.1000e-004	3.1000e-004	0.0000	0.5532	0.5532	1.8000e-004	0.0000	0.5576

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3.4 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	4.0000e-005	1.3400e-003	3.8000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3165	0.3165	3.0000e-005	0.0000	0.3172
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	3.2000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0625	0.0625	0.0000	0.0000	0.0625
Total	8.0000e-005	1.3800e-003	7.0000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3789	0.3789	3.0000e-005	0.0000	0.3797

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	6.4000e-004	4.8100e-003	4.8000e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.1000e-004	3.1000e-004	0.0000	0.5532	0.5532	1.8000e-004	0.0000	0.5576
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.4000e-004	4.8100e-003	4.8000e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.1000e-004	3.1000e-004	0.0000	0.5532	0.5532	1.8000e-004	0.0000	0.5576

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3.4 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	4.0000e-005	1.3400e-003	3.8000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3165	0.3165	3.0000e-005	0.0000	0.3172
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	3.2000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0625	0.0625	0.0000	0.0000	0.0625
Total	8.0000e-005	1.3800e-003	7.0000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3789	0.3789	3.0000e-005	0.0000	0.3797

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	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	0.0000	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
General Light Industry	6.60	5.50	6.40	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.546962	0.032250	0.203301	0.133652	0.025574	0.006384	0.017070	0.018005	0.002749	0.002622	0.007451	0.002735	0.001244

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

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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					
General Light Industry	0	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

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Annual

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

[illegible]

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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	0.0000					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

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	0.0000					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

7.0 Water Detail**7.1 Mitigation Measures Water**

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

MWD Ocean Avenue Project
Santa Barbara-South of Santa Ynez Range County, Summer**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	37
Climate Zone	8			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

Project Characteristics - Based on MWD provided information.

Land Use - Land use surrogate only, construction only, no operation.

Construction Phase - Based on MWD provided information.

Off-road Equipment - Based on MWD provided information.

Off-road Equipment - Based on MWD provided information.

Off-road Equipment - Based on MWD provided information.

Trips and VMT - Based on MWD provided information.

On-road Fugitive Dust - CalEEMod defaults.

Vehicle Trips - Construction only.

Consumer Products - Construction only.

Area Coating - Construction only.

Landscape Equipment - Construction only.

Energy Use - Construction only.

Water And Wastewater - Construction only.

Solid Waste - Construction only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	5.00	3.00
tblConstructionPhase	NumDays	100.00	8.00
tblConstructionPhase	PhaseEndDate	11/14/2019	11/6/2019
tblConstructionPhase	PhaseEndDate	4/14/2020	11/21/2019
tblConstructionPhase	PhaseEndDate	11/15/2019	11/18/2019

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

tblConstructionPhase	PhaseStartDate	4/8/2020	11/19/2019
tblConstructionPhase	PhaseStartDate	11/15/2019	11/7/2019
tblEnergyUse	LightingElect	2.99	0.00
tblEnergyUse	NT24E	3.83	0.00
tblEnergyUse	NT24NG	6.86	0.00
tblEnergyUse	T24E	1.63	0.00
tblEnergyUse	T24NG	14.04	0.00
tblOffRoadEquipment	HorsePower	80.00	31.00
tblOffRoadEquipment	HorsePower	97.00	93.00
tblOffRoadEquipment	HorsePower	97.00	93.00
tblOffRoadEquipment	HorsePower	158.00	41.00
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Pipe Installation and Backfill
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	28.00

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

tblTripsAndVMT	HaulingTripNumber	0.00	24.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	8.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblTripsAndVMT	WorkerTripNumber	18.00	8.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

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	0.4781	4.0980	3.6631	7.9700e-003	0.1840	0.2273	0.3242	0.0501	0.2093	0.2354	0.0000	860.4808	860.4808	0.1508	0.0000	863.1246
Maximum	0.4781	4.0980	3.6631	7.9700e-003	0.1840	0.2273	0.3242	0.0501	0.2093	0.2354	0.0000	860.4808	860.4808	0.1508	0.0000	863.1246

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	0.4781	4.0980	3.6631	7.9700e-003	0.1840	0.2273	0.3242	0.0501	0.2093	0.2354	0.0000	860.4808	860.4808	0.1508	0.0000	863.1246
Maximum	0.4781	4.0980	3.6631	7.9700e-003	0.1840	0.2273	0.3242	0.0501	0.2093	0.2354	0.0000	860.4808	860.4808	0.1508	0.0000	863.1246

[illegible]

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	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
Mobile	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	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	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
Mobile	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	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

	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
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	Excavation	Trenching	11/1/2019	11/6/2019	5	4	
2	Pipe Installation and Backfill	Building Construction	11/7/2019	11/18/2019	5	8	
3	Paving	Paving	11/19/2019	11/21/2019	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pipe Installation and Backfill	Cranes	0	4.00	231	0.29
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Excavation	Concrete/Industrial Saws	0	8.00	81	0.73
Pipe Installation and Backfill	Forklifts	0	6.00	89	0.20
Excavation	Excavators	1	8.00	41	0.38
Pipe Installation and Backfill	Graders	0	8.00	187	0.41
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	1	8.00	31	0.38
Excavation	Rubber Tired Dozers	0	1.00	247	0.40
Excavation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	93	0.37
Pipe Installation and Backfill	Tractors/Loaders/Backhoes	1	8.00	93	0.37

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
Excavation	1	8.00	2.00	28.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Installation and Backfill	5	8.00	2.00	24.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	8.00	0.00	8.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

3.2 Excavation - 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	0.1752	1.1537	1.2632	1.4900e-003		0.0688	0.0688		0.0633	0.0633		147.5353	147.5353	0.0467		148.7022
Total	0.1752	1.1537	1.2632	1.4900e-003		0.0688	0.0688		0.0633	0.0633		147.5353	147.5353	0.0467		148.7022

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	0.0669	2.2835	0.6583	5.5300e-003	0.1216	0.0126	0.1342	0.0333	0.0121	0.0453		613.8416	613.8416	0.0534		615.1775
Vendor	9.7900e-003	0.2396	0.0836	4.8000e-004	0.0118	1.8700e-003	0.0137	3.4100e-003	1.7900e-003	5.2000e-003		52.1856	52.1856	3.8700e-003		52.2825
Worker	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	0.1041	2.5452	0.9537	6.4800e-003	0.1840	0.0148	0.1988	0.0501	0.0142	0.0642		712.9455	712.9455	0.0591		714.4224

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

3.2 Excavation - 2019**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	0.1752	1.1537	1.2632	1.4900e-003		0.0688	0.0688		0.0633	0.0633	0.0000	147.5353	147.5353	0.0467		148.7022
Total	0.1752	1.1537	1.2632	1.4900e-003		0.0688	0.0688		0.0633	0.0633	0.0000	147.5353	147.5353	0.0467		148.7022

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	0.0669	2.2835	0.6583	5.5300e-003	0.1216	0.0126	0.1342	0.0333	0.0121	0.0453		613.8416	613.8416	0.0534		615.1775
Vendor	9.7900e-003	0.2396	0.0836	4.8000e-004	0.0118	1.8700e-003	0.0137	3.4100e-003	1.7900e-003	5.2000e-003		52.1856	52.1856	3.8700e-003		52.2825
Worker	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	0.1041	2.5452	0.9537	6.4800e-003	0.1840	0.0148	0.1988	0.0501	0.0142	0.0642		712.9455	712.9455	0.0591		714.4224

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

3.3 Pipe Installation and Backfill - 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	0.2232	2.2410	2.2077	2.9800e-003		0.1496	0.1496		0.1376	0.1376		294.8597	294.8597	0.0933		297.1920
Total	0.2232	2.2410	2.2077	2.9800e-003		0.1496	0.1496		0.1376	0.1376		294.8597	294.8597	0.0933		297.1920

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	0.0287	0.9787	0.2821	2.3700e-003	0.0521	5.4000e-003	0.0575	0.0143	5.1600e-003	0.0194		263.0750	263.0750	0.0229		263.6475
Vendor	9.7900e-003	0.2396	0.0836	4.8000e-004	0.0118	1.8700e-003	0.0137	3.4100e-003	1.7900e-003	5.2000e-003		52.1856	52.1856	3.8700e-003		52.2825
Worker	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	0.0659	1.2403	0.5776	3.3200e-003	0.1145	7.6000e-003	0.1221	0.0311	7.2600e-003	0.0383		362.1789	362.1789	0.0285		362.8924

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

3.3 Pipe Installation and Backfill - 2019**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	0.2232	2.2410	2.2077	2.9800e-003		0.1496	0.1496		0.1376	0.1376	0.0000	294.8597	294.8597	0.0933		297.1920
Total	0.2232	2.2410	2.2077	2.9800e-003		0.1496	0.1496		0.1376	0.1376	0.0000	294.8597	294.8597	0.0933		297.1920

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	0.0287	0.9787	0.2821	2.3700e-003	0.0521	5.4000e-003	0.0575	0.0143	5.1600e-003	0.0194		263.0750	263.0750	0.0229		263.6475
Vendor	9.7900e-003	0.2396	0.0836	4.8000e-004	0.0118	1.8700e-003	0.0137	3.4100e-003	1.7900e-003	5.2000e-003		52.1856	52.1856	3.8700e-003		52.2825
Worker	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	0.0659	1.2403	0.5776	3.3200e-003	0.1145	7.6000e-003	0.1221	0.0311	7.2600e-003	0.0383		362.1789	362.1789	0.0285		362.8924

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

3.4 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	0.4251	3.2060	3.2005	4.1000e-003		0.2222	0.2222		0.2044	0.2044		406.5422	406.5422	0.1286		409.7579
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4251	3.2060	3.2005	4.1000e-003		0.2222	0.2222		0.2044	0.2044		406.5422	406.5422	0.1286		409.7579

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	0.0255	0.8699	0.2508	2.1100e-003	0.0463	4.8000e-003	0.0511	0.0127	4.5900e-003	0.0173		233.8444	233.8444	0.0204		234.3534
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	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	0.0530	0.8920	0.4626	2.5800e-003	0.0969	5.1300e-003	0.1020	0.0261	4.9000e-003	0.0310		280.7627	280.7627	0.0221		281.3158

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

3.4 Paving - 2019**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	0.4251	3.2060	3.2005	4.1000e-003		0.2222	0.2222		0.2044	0.2044	0.0000	406.5422	406.5422	0.1286		409.7579
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4251	3.2060	3.2005	4.1000e-003		0.2222	0.2222		0.2044	0.2044	0.0000	406.5422	406.5422	0.1286		409.7579

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	0.0255	0.8699	0.2508	2.1100e-003	0.0463	4.8000e-003	0.0511	0.0127	4.5900e-003	0.0173		233.8444	233.8444	0.0204		234.3534
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	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	0.0530	0.8920	0.4626	2.5800e-003	0.0969	5.1300e-003	0.1020	0.0261	4.9000e-003	0.0310		280.7627	280.7627	0.0221		281.3158

4.0 Operational Detail - Mobile

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

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	0.0000	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
General Light Industry	6.60	5.50	6.40	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.546962	0.032250	0.203301	0.133652	0.025574	0.006384	0.017070	0.018005	0.002749	0.002622	0.007451	0.002735	0.001244

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

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	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
NaturalGas Unmitigated	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

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

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					
General Light Industry	0	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

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					
General Light Industry	0	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

6.0 Area Detail**6.1 Mitigation Measures Area**

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

	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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Summer

Boilers

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

Equipment Type	Number
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11.0 Vegetation

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

MWD Ocean Avenue Project
Santa Barbara-South of Santa Ynez Range County, Winter**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	37
Climate Zone	8			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

Project Characteristics - Based on MWD provided information.

Land Use - Land use surrogate only, construction only, no operation.

Construction Phase - Based on MWD provided information.

Off-road Equipment - Based on MWD provided information.

Off-road Equipment - Based on MWD provided information.

Off-road Equipment - Based on MWD provided information.

Trips and VMT - Based on MWD provided information.

On-road Fugitive Dust - CalEEMod defaults.

Vehicle Trips - Construction only.

Consumer Products - Construction only.

Area Coating - Construction only.

Landscape Equipment - Construction only.

Energy Use - Construction only.

Water And Wastewater - Construction only.

Solid Waste - Construction only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	5.00	3.00
tblConstructionPhase	NumDays	100.00	8.00
tblConstructionPhase	PhaseEndDate	11/14/2019	11/6/2019
tblConstructionPhase	PhaseEndDate	4/14/2020	11/21/2019
tblConstructionPhase	PhaseEndDate	11/15/2019	11/18/2019

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

tblConstructionPhase	PhaseStartDate	4/8/2020	11/19/2019
tblConstructionPhase	PhaseStartDate	11/15/2019	11/7/2019
tblEnergyUse	LightingElect	2.99	0.00
tblEnergyUse	NT24E	3.83	0.00
tblEnergyUse	NT24NG	6.86	0.00
tblEnergyUse	T24E	1.63	0.00
tblEnergyUse	T24NG	14.04	0.00
tblOffRoadEquipment	HorsePower	80.00	31.00
tblOffRoadEquipment	HorsePower	97.00	93.00
tblOffRoadEquipment	HorsePower	97.00	93.00
tblOffRoadEquipment	HorsePower	158.00	41.00
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Pipe Installation and Backfill
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	PhaseName		Excavation
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	28.00

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tblTripsAndVMT	HaulingTripNumber	0.00	24.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	8.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblTripsAndVMT	WorkerTripNumber	18.00	8.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

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	0.4823	4.1074	3.6843	7.8800e-003	0.1840	0.2274	0.3243	0.0501	0.2094	0.2355	0.0000	850.2502	850.2502	0.1512	0.0000	852.9281
Maximum	0.4823	4.1074	3.6843	7.8800e-003	0.1840	0.2274	0.3243	0.0501	0.2094	0.2355	0.0000	850.2502	850.2502	0.1512	0.0000	852.9281

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	0.4823	4.1074	3.6843	7.8800e-003	0.1840	0.2274	0.3243	0.0501	0.2094	0.2355	0.0000	850.2502	850.2502	0.1512	0.0000	852.9281
Maximum	0.4823	4.1074	3.6843	7.8800e-003	0.1840	0.2274	0.3243	0.0501	0.2094	0.2355	0.0000	850.2502	850.2502	0.1512	0.0000	852.9281

[illegible]

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	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
Mobile	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	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	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
Mobile	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	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

	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
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	Excavation	Trenching	11/1/2019	11/6/2019	5	4	
2	Pipe Installation and Backfill	Building Construction	11/7/2019	11/18/2019	5	8	
3	Paving	Paving	11/19/2019	11/21/2019	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pipe Installation and Backfill	Cranes	0	4.00	231	0.29
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Excavation	Concrete/Industrial Saws	0	8.00	81	0.73
Pipe Installation and Backfill	Forklifts	0	6.00	89	0.20
Excavation	Excavators	1	8.00	41	0.38
Pipe Installation and Backfill	Graders	0	8.00	187	0.41
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	1	8.00	31	0.38
Excavation	Rubber Tired Dozers	0	1.00	247	0.40
Excavation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	93	0.37
Pipe Installation and Backfill	Tractors/Loaders/Backhoes	1	8.00	93	0.37

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
Excavation	1	8.00	2.00	28.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Installation and Backfill	5	8.00	2.00	24.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	8.00	0.00	8.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

3.2 Excavation - 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	0.1752	1.1537	1.2632	1.4900e-003		0.0688	0.0688		0.0633	0.0633		147.5353	147.5353	0.0467		148.7022
Total	0.1752	1.1537	1.2632	1.4900e-003		0.0688	0.0688		0.0633	0.0633		147.5353	147.5353	0.0467		148.7022

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	0.0687	2.2998	0.6903	5.4600e-003	0.1216	0.0129	0.1345	0.0333	0.0123	0.0456		605.8762	605.8762	0.0546		607.2412
Vendor	0.0103	0.2393	0.0918	4.7000e-004	0.0118	1.9200e-003	0.0138	3.4100e-003	1.8300e-003	5.2400e-003		51.0046	51.0046	4.0600e-003		51.1060
Worker	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	0.1100	2.5643	1.0030	6.3900e-003	0.1840	0.0151	0.1991	0.0501	0.0145	0.0646		702.7149	702.7149	0.0604		704.2259

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

3.2 Excavation - 2019**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	0.1752	1.1537	1.2632	1.4900e-003		0.0688	0.0688		0.0633	0.0633	0.0000	147.5353	147.5353	0.0467		148.7022
Total	0.1752	1.1537	1.2632	1.4900e-003		0.0688	0.0688		0.0633	0.0633	0.0000	147.5353	147.5353	0.0467		148.7022

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	0.0687	2.2998	0.6903	5.4600e-003	0.1216	0.0129	0.1345	0.0333	0.0123	0.0456		605.8762	605.8762	0.0546		607.2412
Vendor	0.0103	0.2393	0.0918	4.7000e-004	0.0118	1.9200e-003	0.0138	3.4100e-003	1.8300e-003	5.2400e-003		51.0046	51.0046	4.0600e-003		51.1060
Worker	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	0.1100	2.5643	1.0030	6.3900e-003	0.1840	0.0151	0.1991	0.0501	0.0145	0.0646		702.7149	702.7149	0.0604		704.2259

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3.3 Pipe Installation and Backfill - 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	0.2232	2.2410	2.2077	2.9800e-003		0.1496	0.1496		0.1376	0.1376		294.8597	294.8597	0.0933		297.1920
Total	0.2232	2.2410	2.2077	2.9800e-003		0.1496	0.1496		0.1376	0.1376		294.8597	294.8597	0.0933		297.1920

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	0.0294	0.9856	0.2958	2.3400e-003	0.0521	5.5200e-003	0.0577	0.0143	5.2800e-003	0.0195		259.6613	259.6613	0.0234		260.2462
Vendor	0.0103	0.2393	0.0918	4.7000e-004	0.0118	1.9200e-003	0.0138	3.4100e-003	1.8300e-003	5.2400e-003		51.0046	51.0046	4.0600e-003		51.1060
Worker	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	0.0707	1.2502	0.6085	3.2700e-003	0.1145	7.7700e-003	0.1223	0.0311	7.4200e-003	0.0385		356.4999	356.4999	0.0292		357.2310

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

3.3 Pipe Installation and Backfill - 2019**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	0.2232	2.2410	2.2077	2.9800e-003		0.1496	0.1496		0.1376	0.1376	0.0000	294.8597	294.8597	0.0933		297.1920
Total	0.2232	2.2410	2.2077	2.9800e-003		0.1496	0.1496		0.1376	0.1376	0.0000	294.8597	294.8597	0.0933		297.1920

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	0.0294	0.9856	0.2958	2.3400e-003	0.0521	5.5200e-003	0.0577	0.0143	5.2800e-003	0.0195		259.6613	259.6613	0.0234		260.2462
Vendor	0.0103	0.2393	0.0918	4.7000e-004	0.0118	1.9200e-003	0.0138	3.4100e-003	1.8300e-003	5.2400e-003		51.0046	51.0046	4.0600e-003		51.1060
Worker	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	0.0707	1.2502	0.6085	3.2700e-003	0.1145	7.7700e-003	0.1223	0.0311	7.4200e-003	0.0385		356.4999	356.4999	0.0292		357.2310

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3.4 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	0.4251	3.2060	3.2005	4.1000e-003		0.2222	0.2222		0.2044	0.2044		406.5422	406.5422	0.1286		409.7579
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4251	3.2060	3.2005	4.1000e-003		0.2222	0.2222		0.2044	0.2044		406.5422	406.5422	0.1286		409.7579

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	0.0262	0.8761	0.2630	2.0800e-003	0.0463	4.9100e-003	0.0512	0.0127	4.7000e-003	0.0174		230.8100	230.8100	0.0208		231.3300
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	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	0.0572	0.9013	0.4838	2.5400e-003	0.0969	5.2400e-003	0.1021	0.0261	5.0100e-003	0.0311		276.6441	276.6441	0.0226		277.2087

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

3.4 Paving - 2019**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	0.4251	3.2060	3.2005	4.1000e-003		0.2222	0.2222		0.2044	0.2044	0.0000	406.5422	406.5422	0.1286		409.7579
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4251	3.2060	3.2005	4.1000e-003		0.2222	0.2222		0.2044	0.2044	0.0000	406.5422	406.5422	0.1286		409.7579

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	0.0262	0.8761	0.2630	2.0800e-003	0.0463	4.9100e-003	0.0512	0.0127	4.7000e-003	0.0174		230.8100	230.8100	0.0208		231.3300
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	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	0.0572	0.9013	0.4838	2.5400e-003	0.0969	5.2400e-003	0.1021	0.0261	5.0100e-003	0.0311		276.6441	276.6441	0.0226		277.2087

4.0 Operational Detail - Mobile

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

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	0.0000	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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
General Light Industry	6.60	5.50	6.40	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.546962	0.032250	0.203301	0.133652	0.025574	0.006384	0.017070	0.018005	0.002749	0.002622	0.007451	0.002735	0.001244

MWD Ocean Avenue Project - Santa Barbara-South of Santa Ynez Range County, Winter

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	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
NaturalGas Unmitigated	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

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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					
General Light Industry	0	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

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					
General Light Industry	0	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

6.0 Area Detail**6.1 Mitigation Measures Area**

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	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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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11.0 Vegetation

Appendix B

Roadway Construction Noise Model Data

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/26/2019

Case Description: Ocean View - Excavation

---- Receptor #1 ----

Description Land Use	Baselines (dBA)		
	Daytime	Evening	Night
Closest Res Residential	50	45	40

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Front End Loader	No	40		79.1	50	0

Equipment	Results			Noise Limits (dBA)			
	Calculated (dBA)		Day				Night
	*Lmax	Leq		Leq	Evening	Leq	
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A
Total	79.1	75.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Noise Limit Exceedance (dBA)						
	Day		Evening		Night	
Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/26/2019

Case Description: Ocean View - Paving

---- Receptor #1 ----

Description Land Use	Baselines (dBA)		
	Daytime	Evening	Night
Closest Residential	50	45	40

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Front End Loader	No	40		79.1	50	0
Roller	No	20		80	50	0

Equipment	Calculated (dBA)		Results Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A
Roller	80	73	N/A	N/A	N/A	N/A	N/A
Total	80	77.2	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Noise Limit Exceedance (dBA)						
	Day		Evening		Night	
Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 8/26/2019

Case Description: Ocean View - Pipe Installation and Backfill

---- Receptor #1 ----

Description Land Use	Baselines (dBA)		
	Daytime	Evening	Night
Closest Res Residential	50	45	40

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
Front End Loader	No	40		79.1	50	0

Equipment	Results		Noise Limits (dBA)				
	Calculated (dBA)		Day		Evening		Night
	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A
Total	79.1	75.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Noise Limit Exceedance (dBA)						
	Day		Evening		Night	
Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A