



**Draft Program Environmental Impact Report
City of Encinitas Mobility Element Update
SCH #2022080705**

September 2024

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ES EXECUTIVE SUMMARY

ES.1 Introduction

The Draft Program Environmental Impact Report (PEIR) for the proposed City of Encinitas Mobility Element Update (MEU; Project) has been prepared on behalf of the City of Encinitas (City) in compliance with the California Environmental Quality Act (CEQA) Statute and Guidelines (Public Resources Code, Section 21000 et seq. and California Code of Regulations, Title 14, Section 15000, et seq.).

The City is updating the Mobility Element of its General Plan to set a long-term vision for regional mobility by establishing goals, multimodal networks, and supporting policies. The Project would accommodate future growth by providing a long-term blueprint that guides transportation decision making, plans for diverse modes and mobility options including vehicular travel in an organized and planned manner. The MEU envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The MEU would revise the City's existing Circulation Element policies to account for changes made to state law and best practices to create a single cohesive mobility framework. The MEU would also include changes to the City's roadway classifications to better accommodate all modes of travel.

ES.2 Purpose of the Draft Environmental Impact Report

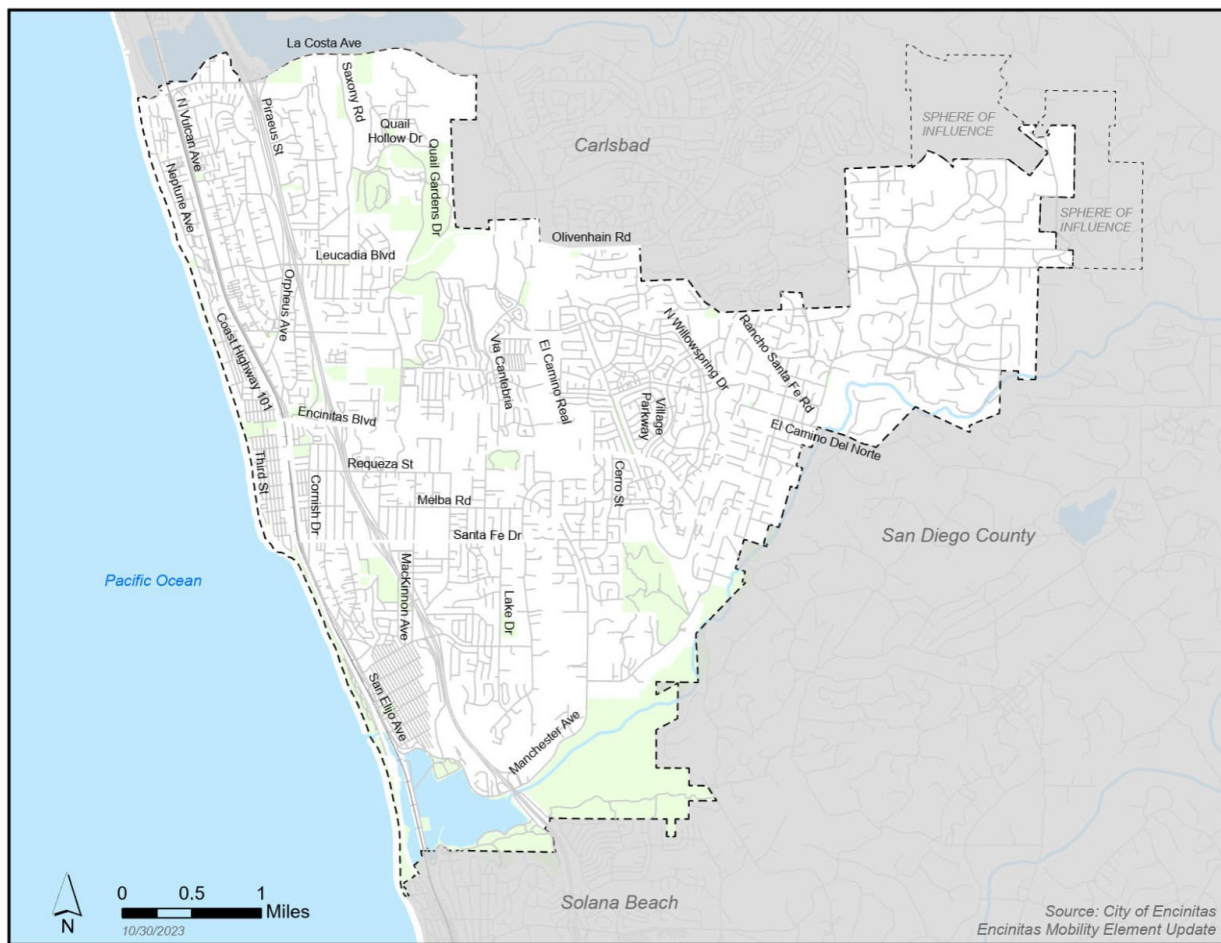
The Draft EIR satisfies the requirements of CEQA and the CEQA Guidelines to inform decision-makers and the public about the potential significant environmental impacts of implementing the Project. The Draft EIR is an informational public document that discloses any significant environmental impacts of the Project and identifies ways to reduce or avoid their environmental effects, if required. The Draft EIR also identifies reasonable alternatives to the Project, as well as an environmentally superior alternative. The City is the lead agency for the Project. Lead Agencies are charged with the duty to avoid or substantially lessen significant environmental impacts of a Project, where feasible.

ES.3 Project Location and Setting

The Planning Area for the MEU is the City of Encinitas, which is in northern San Diego County, approximately 25 miles north of the City of San Diego. It encompasses approximately 20 square miles and is considered almost fully developed. The City is bordered by the City of Carlsbad to the north, the City of Solana Beach to the south, unincorporated San Diego County to the east, and the Pacific Ocean to the west. Interstate 5 and Coast Highway 101 both cut north south through the western half of the City of Encinitas. **Figure ES-1** Regional Location shows its the Project's regional location, and **Figure ES-2** Project Location shows the Project's location within City boundaries.

Figure ES-1 Regional Location



Figure ES-2 Project Location

ES.4 Project Summary

The City is updating the Mobility Element of its General Plan to set a long-term vision for regional mobility. The proposed MEU would provide a long-term blueprint guide for transportation decision-making and future mobility improvements. The MEU would also accommodate future growth for all modes of transportation including vehicular travel. In accordance with CEQA Guidelines Section 15124, the primary objective of the Project is to address the mobility needs of the City for all modes of travel and to meet the requirements of State law.

The Project objectives are as follows:

1. Improve the safety, interconnectivity, accessibility, and comfort of all multimodal corridors to maximize the number of trips made by foot, transit/micro transit, micromobility, and bicycle to schools, parks, neighborhoods, the coast, and shopping areas.

2. Provide for, expand, and sustain a mix of transportation modes that meets the existing and future transportation needs of all Encinitas residents and visitors and minimizes impacts to the community and environmental character.
3. Promote a long-term, coordinated program that provides standards and direction for improvements to the public right-of-way to enhance the identity of specific areas and create street design solutions to accommodate all modes of travel.
4. Update existing classifications within the Mobility Element so that the Encinitas circulation network responds to the present and future circulation needs of all users.
5. Consolidate existing and new policies in its various mode-specific, strategic plans—including the Climate Action Plan, Modal Alternatives Plan, Rail Corridor Cross Connect Implementation Plan, and the Active Transportation Plan—into one cohesive City-wide citywide framework.

The MEU would establish improved mobility for all modes in the City. Evolving community needs and new regulations are changing the way the region and local agencies plan transportation and land use. This Element would analyze the City's transportation network through a new framework that accomplishes the following:

- Prioritizes the movement of people safely and across all modes
- Focuses on full right-of-way widths, including parkways and sidewalks
- Considers land use and context

ES.5 Summary of Environmental Analysis

In accordance with the CEQA Guidelines, this EIR focuses on the project's significant effects on the environment. The CEQA Guidelines define a significant effect as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project. A less than significant effect is one in which there is no long- or short-term significant adverse change in environmental conditions. Some impacts are reduced to a less than significant level with the implementation of mitigation measures and/or compliance with regulations.

Table ES-1 summarizes the environmental impact analysis. The environmental impact analysis consists of the proposed Project, the impact level of significance prior to mitigation, the proposed mitigation measures to mitigate an impact, and the impact level of significance after mitigation.

Table ES-1 Project Impacts and Proposed Mitigation Measures			
Environmental Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
Air Quality			
3.1.5: Plan Consistency	Less than Significant.	None Required.	Less than significant.
3.1.6: Criteria Pollutants	Less than Significant.	None Required.	Less than significant.
3.1.7: Sensitive Receptors	Less than Significant	None Required	Less than significant
3.1.8: Odors	Less than Significant	None Required	Less than significant
Greenhouse Gas Emissions and Climate Change			
3.2.5: Greenhouse Gas Emissions	Less than significant	None Required	Less than Significant
3.2.6: Consistency with GHG-Reduction Plans	Less than significant	None Required	Less than Significant
Noise and Vibration			
3.3.5: Noise Standards	Less than Significant	None Required	Less than Significant
Land Use and Planning			
3.4.4: Physically divide an established community	Less than Significant	None Required	Less than Significant
3.4.5: 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	Less than Significant	None Required	Less than Significant

ES.6 Project Alternatives

The alternatives described below are analyzed in accordance with each issue identified in Chapter 6.0 of this PEIR. The conclusion for each alternative also provides an overview of how the alternative meets, partially meets, or fails to meet the project objectives. The alternatives to the Project evaluated in detail in Chapter 6.0 of this PEIR are the No Project Alternative and The Existing Right-of-Way Alternative. **Table ES-2** provides a comparative summary of alternatives.

Table ES-2 Comparison of Project Alternatives				
Environmental Issue	Mitigation Measure	Project	Alternative 1: No Project/ Adopted Plan	Alternative 2: Existing Right- of-Way Alternative
Air Quality	None	Less Than Significant Impact	Greater	Similar
Greenhouse Gas Emissions and Climate Change	None	Less Than Significant Impact	Greater	Similar
Noise and Vibration	None	Less Than Significant Impact	Greater	Less
Land Use and Planning	None	Less Than Significant Impact	Greater	Similar
Public Services and Utilities	None	Less Than Significant Impact	Similar	Similar
Transportation and Circulation	None	Less than Significant Impact	Greater	Similar

ES.6.1 No Project Alternative (Adopted General Plan)

As required by Section 15126.6 (e)(3)(B) of the CEQA Guidelines, under the No Project/Adopted Plan Alternative, the MEU would not be adopted, and mobility and circulation in the Planning Area would continue to occur in accordance with the existing Mobility Element. The No Project Alternative includes “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services” (CEQA Section 15126.6 [e][2]).

The San Diego Association of Governments (SANDAG) Regional Plan 2050 forecast was used to create the future baseline environment that represents the No Project Alternative. The baseline year of 2016 was used for existing conditions input data and vehicle miles traveled (VMT) was calculated with the 2050 forecast. The network properties, such as functional classification of roadways, number of lanes, roadway speed, types of median, were checked against and modified to match the currently adopted 1989 Circulation Element and 2021 SANDAG Regional Plan (DS41) before running the 2050 Adopted (Without Project) scenario. The 2050 adopted scenario also included the land use assumptions for the City including the recently adopted Housing Element.

ES.6.2 Alternative 2 - Existing Right-of-Way

The Existing Right-of-Way Alternative would implement mobility improvements within the existing roadway and public right-of-way. Project construction would include restriping, curb relocation and lane adjustments within existing right-of-way. Mitigation measures would be used to reduce temporary construction impacts. Long-term, the existing Right-of-Way Alternative would establish improved mobility for all modes to accommodate the Evolving community needs and new regulations in the region and local transportation and land use plans.

ES.6.3 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) requires the identification of an environmentally superior alternative among the alternatives analyzed in an EIR. In general, the environmentally superior alternative is the alternative that would be expected to generate the fewest adverse impacts. If the No Project Alternative is identified as environmentally superior, then another environmentally superior alternative shall be identified among the other alternatives.

Although impacts anticipated under the Existing ROW Alternative would be similar to the Project, the alternative would result in an incrementally lower level of effect due to the lower intensity of physical changes and would result in lesser impacts on noise and vibration, than the Project. Therefore, the Existing ROW Alternative is the environmentally superior alternative due to a lower level of environmental impact.

ES.7 Areas of Controversy

CEQA Guidelines Section 15123(b)(2) requires that an EIR identify areas of controversy known to the lead agency, including issues raised by other agencies and the public. Areas of potential controversy for the Project include:

- Parking availability following roadway improvements
- Safety of roadways with potential user conflicts
- Impacts to emergency services ingress and egress routes

ES.8 Issues To Be Resolved

CEQA Guidelines Section 15123(b)(3) requires a discussion of issues to be resolved by the lead agency. Upon completion of CEQA review, the City will consider the CEQA Findings of Fact and whether to approve the Project and certify the EIR.

1 INTRODUCTION

This Draft Program Environmental Impact Report (PEIR) for the proposed City of Encinitas Mobility Element Update (MEU; Project) has been prepared on behalf of the City of Encinitas (City) in compliance with the California Environmental Quality Act (CEQA) Statute and Guidelines (Public Resources Code, Section 21000 et seq. and California Code of Regulations, Title 14, Section 15000, et seq.).

The City is updating the Mobility Element of its General Plan to set a long-term vision for regional mobility by establishing goals, multimodal networks, and supporting policies. The Project would accommodate future growth by providing a long-term blueprint that guides transportation decision making, plans for diverse modes and mobility options including vehicular, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The MEU would revise the City's existing Circulation Element to account for changes made to state law and best practices, to create a single cohesive mobility framework. The MEU would also include changes to the City's roadway classifications to better accommodate all modes of travel.

1.1 Purpose of the PEIR

In accordance with CEQA Guidelines Section 15121, the purpose of this PEIR is to provide public agency decision-makers and members of the public with general information about the potential significant environmental effects of the Project, possible ways to minimize its significant effects, and reasonable alternatives that would reduce or avoid any identified significant effects. The PEIR includes recommended mitigation measures that, when implemented, would lessen the Project's impacts and provide the City, which is the lead agency as defined in Article 4 of the CEQA Guidelines (Sections 15050 through 15051), with ways to substantially lessen or avoid the significant effects of the Project on the environment, whenever feasible. Alternatives to the Project are presented to evaluate alternative land use scenarios, policies, and/or regulations that would further reduce or avoid significant impacts associated with the Project.

1.1.1 Type of Environmental Impact Report

This environmental impact report (EIR) has been prepared as a PEIR, as defined in Section 15168 of the CEQA Guidelines. A PEIR is recommended for a series of actions that are related geographically, as logical parts in a chain of contemplated actions, or in connection with the issuance of plans that govern the conduct of a continuing program [per CEQA Guidelines, Section 15168(a)].

1.2 Legal Authority

1.2.1 Lead Agency

The City is the lead agency for the Project, pursuant to Article 4 (Sections 15050 and 15051) of the CEQA Guidelines. The lead agency, as defined by CEQA Guidelines Section 15367, is the public agency that has the principal responsibility and authority for carrying out or approving a proposed project. As the lead agency, the City conducted a preliminary review of the Project and determined that a PEIR was required. The analysis and findings in this PEIR reflect the independent, impartial conclusions of the City.

1.2.2 Responsible and Trustee Agencies

State law requires that all EIRs be reviewed by responsible and trustee agencies. The term “responsible agency,” defined pursuant to CEQA Guidelines Section 15381, includes all public agencies other than the lead agency that have discretionary approval authority over one or more actions involved with project implementation. A trustee agency is defined in Section 15386 of the CEQA Guidelines as a state agency having jurisdiction by law over natural resources that are held in trust for the people of the state of California and that may be affected by a project.

Responsible/trustee agencies for the MEU include the following:

- California Coastal Commission
- San Diego County Air Pollution Control District
- San Diego Regional Water Quality Control Board
- California Department of Transportation

1.3 Notice of Preparation

The scope of analysis for this PEIR was determined by the City as a result of an initial review of the Project and consideration of comments received in response to the Notice of Preparation (NOP) issued on September 1, 2022. A public scoping meeting was held on September 19, 2022, from 5 p.m. to 7 p.m. at City Hall, located at 505 S. Vulcan Ave., Encinitas, CA 92024. Public outreach for the NOP included distribution using the following methods:

- The NOP was published on September 2, 2022, in the Coast News.
- The NOP was posted at the office of the San Diego County Assessor-County Clerk-Recorder.
- The NOP was distributed to state agencies through the Governor’s Office of Planning and Research, State Clearinghouse.
- The NOP was made available to the public for review at the following web location: encinitasca.gov/mobility element.

The NOP and comments received during the NOP public review period are provided in Appendix A.

1.4 Scope of This PEIR

Through planning and scoping activities, it was determined that the Project could result in potentially significant environmental impacts in the following environmental areas:

- Air Quality
- Greenhouse Gas Emissions and Climate Change
- Land Use and Planning
- Noise and Vibration
- Public Services and Facilities
- Transportation and Circulation

This PEIR has been organized in accordance with the most recent CEQA Guidelines. Its organization and content are summarized below:

- **Executive Summary** provides a brief description of the Project, identification of areas of controversy, a summary of the PEIR analysis, and a summary table identifying significant impacts, proposed mitigation measures, and impact level after mitigation. It also includes a summary of the Project alternatives and a comparison of the potential impacts of the alternatives with those of the Project.
- **Chapter 1.0 Introduction** contains an overview of the legal authority, purpose, and intended uses of the PEIR, as well as its scope and organization. It also includes a discussion of the CEQA environmental review process, including opportunities for public involvement.
- **Chapter 2.0 Project Description** provides a detailed description of the Project, including background on its development, its main objectives, and key features. It also describes the discretionary actions required to fully adopt and implement the Project.
- **Chapter 3.0 Environmental Analysis** contains an evaluation of potential impacts related to the environmental issues identified in the PEIR scope. Each issue evaluation includes discussion of the existing conditions, including the existing regulatory framework, identification of the thresholds and methodology for determining the significance of impacts, assessment of potential impacts, and evaluation of the significance of the impacts considering the existing regulatory framework and/or new standards proposed in conjunction with the MEU. Where analysis demonstrates that potentially significant impacts could occur, mitigation is provided.
- **Chapter 4.0 Other CEQA Required Topics:**
 - **Effects Found Not to Be Significant Impacts** identifies all of the issues determined in the scoping and preliminary environmental review process to be not significant based on CEQA criteria, and briefly summarizes the basis for these determinations.
 - **Significant Unavoidable Environmental Effects/Significant Irreversible Environmental Changes** discusses the significant unavoidable or irreversible impacts that would occur with implementation of the Project. This section describes the potentially

- significant irreversible changes that may be expected to result from the Project and addresses the use of nonrenewable resources during the Project's construction and operational life.
- **Growth Inducement** evaluates the potential for the Project to induce economic or population growth, either directly or indirectly, within the Project Area and region.
- **Chapter 5.0 Cumulative Impacts** identifies the cumulative impacts of the project when viewed in connection with the effects of past, current, and probable future projects.
- **Chapter 6.0 Alternatives** provides a description and comparative analysis of the Project alternatives, including the Alternatives Considered but Rejected. It includes both summaries and tabular comparison of the alternatives is included. As required by CEQA Guidelines Section 15126.6(e)(2), the PEIR identifies the environmentally superior alternative.
- **Chapter 7.0 List of Acronyms** lists the acronyms used in the PEIR.
- **Chapter 8.0 List of References** lists the reference materials cited in the PEIR.
- **Chapter 9.0 List of Preparers** lists the preparers who contributed to the preparation of the PEIR.

1.5 Review Process

1.5.1 Draft PEIR

In accordance with Sections 15085 and 15087 (a) (1) of the CEQA Guidelines and the City's CEQA Supplemental Regulations, upon completion of the Draft PEIR a Notice of Completion is filed with the State Office of Planning and Research, and a Notice of Availability of the Draft PEIR is issued in a newspaper of general circulation in the area.

The Draft PEIR is distributed for review to the public and interested and affected agencies for the purpose of providing comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (Section 15204, CEQA Guidelines).

The Draft PEIR and all related technical studies are available for review during the public review period at the following locations:

City of Encinitas Planning and Building Department
505 South Vulcan Avenue
Encinitas, California 92024

Encinitas Branch Library
540 Cornish Drive
Encinitas, California 92024

The Draft PEIR can be downloaded from the City's website at:

<https://www.encinitasca.gov/government/public-notice/development-services>

1.5.2 Final PEIR

Following public review of the Draft PEIR, the City will provide written responses to comments per CEQA Guidelines Section 15088 and will consider all relevant comments in making its decision to certify the Final PEIR. Responses to the comments received during public review, associated revisions to the Draft PEIR sections, and the CEQA Findings of Fact, will be prepared and compiled as part of the Final PEIR.

The culmination of this process is a public hearing where the City Council would determine whether to certify the Final PEIR as being complete and in accordance with CEQA. The Final PEIR will be available for public review at least 10 days before the decision-making bodies make a recommendation or final determination, in order to provide commenters the opportunity to review the City's written responses to their comment letters.

2 PROJECT DESCRIPTION

The City is updating the Mobility Element of its General Plan to set a long-term vision for regional mobility by establishing goals, multimodal networks, and supporting policies. The proposed City of Encinitas Mobility Element Update (MEU; Project) would provide a long-term blueprint that guides transportation decision-making, plans for diverse modes and mobility options, envisions future mobility improvements and would accommodate future growth for all modes of transportation including vehicular travel in an organized and planned manner. The MEU would revise the City's existing Circulation Element policies to account for changes made to state law to create a single cohesive mobility framework. The MEU would also include changes to the City's roadway classifications to better accommodate all modes of travel.

2.1 Project Background and History

California State law requires each city and county to adopt a general plan for its physical development. A general plan is a key tool that addresses a variety of subject areas and expresses the community's development goals related to future land uses in the jurisdiction. The Mobility Element update proposes goals, policies, and a mobility network intended to guide future mobility improvements. Furthermore, the Mobility Element update would serve as a blueprint to guide transportation-related decision-making collectively with other general plan elements for buildout of the City. The updated Mobility Element (formerly the Circulation Element) would be consistent with and become part of the Encinitas General Plan, which provides both policy and regulatory direction.

The current City of Encinitas Circulation Element was adopted in 1989 by City of Encinitas City Council Resolution No. 89-17, which adopted the Circulation Element as a part of the City's General Plan. At the time of the adoption, the 1989 General Plan included all elements mandated by California Planning and Zoning Laws: Land Use, Circulation, Housing, Public Safety, Resource Management (Open Space and Conservation elements), and Noise; and an optional Recreation Element.

Since the adoption of the General Plan in 1989, Encinitas has experienced both changes in land use intensity and increases in population. Encinitas' population has grown nearly 12% between 1990 and 2020, and several residential areas have developed within that same timeframe. To accommodate their growing population, the City of Encinitas authored but did not approve, a General Plan update in 2013, which would have been in effect until 2035 and rezoned parts of the City. As a result of these physical changes within the City, the original Circulation Element is out of date and no longer adequately addresses how Encinitas's circulation network might best serve all users.

In addition to these local changes, there have also been regulatory changes that affect the City's current Circulation Element. Assembly Bill (AB) 1358, also known as the 2008 Complete Streets Act,

requires that a Mobility Element plan for a balanced and multimodal transportation network that addresses the need of all users of streets, roads, and highways in a manner suitable for the rural, suburban, or urban context of the general plan. Assembly Bill (AB) 43 was adopted in September 2021 and focuses on Traffic Safety. This bill allows City Governments to drop speed limits and to set limits in certain “Safety Zones” aiming to increase pedestrian safety.

Senate Bill 375 was also adopted in 2008 to support the implementation of AB 32—also known as the Global Warming Solutions Act of 2006—which requires California to lower statewide greenhouse gas (GHG) emissions to 1990 levels by 2020. SB 375 requires that state Metropolitan Planning Organizations (MPOs) develop a Sustainable Communities Strategy (SCS) as part of their regional transportation plans (RTPs). The SCS must demonstrate how the region would meet its goals for reducing GHG emissions from automobiles and light trucks (SANDAG 2021a). Assembly Bill 1279 (AB 1279), the California Climate Crisis Act, codified the carbon neutrality target as 85% below 1990 levels by 2045. The 2022 Scoping Plan was adopted in December 2022. The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85% below 1990 levels no later than 2045.

Approved in September 2016, SB 32 updates the California Global Warming Solutions Act of 2006 and enacts Executive Order (EO) B-30-15. EO B-30-15 establishes a GHG emission reduction of 40% below 1990 levels by 2030 for the State of California. This EO also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the 2030 goal, as well as the preexisting, long-term required state-wide GHG reduction targets to 80% below 1990 levels by 2050 identified in EO S-3-05.

In the San Diego region, the San Diego Association of Governments (SANDAG) serves as the regional MPO and transportation planning agency. In 2019, SANDAG adopted the Federal Regional Transportation Plan, which incorporated the 2015 SCS and serves as a guide for future development of the regional transportation network through the year 2050. The 2021 Regional Plan was adopted two years later and provides a comprehensive blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources. It builds from older versions of the Regional Plan (2004 and 2015) and incorporates the SCS. As a result, the latest plan is compliant with SB 375 as it identifies how the region would address GHG emissions to meet State-mandated levels and focuses on land use planning and transportation issues to develop sustainable growth patterns on a regional level.

To address these changes, a draft update to the Mobility Element was proposed in 2016 but was never adopted. In the spring of 2021, the City began a project to update its Mobility Element and create a framework to implement SB 743, a new State law governing transportation analysis, and to account for mobility, population, and land use changes not reflected in the original 1989 Element.

SB 743 was passed by the legislature and signed into law in the fall of 2013. This legislation led to a change in the way that transportation impacts are measured under the California Environmental Quality Act (CEQA). The California Natural Resources Agency updated the Guidelines for the Implementation of the CEQA Guidelines in December 2018. Per the CEQA Guidelines, starting on July 1, 2020, automobile delay and level of service (LOS) were no longer permitted to be used as the performance measure to determine the transportation impacts of land development projects under CEQA.

To implement SB 743, the CEQA Guidelines were revised to require the use of VMT as the most appropriate measure of transportation impacts. VMT is a metric that accounts for the number of vehicle trips generated and the length or distance of those trips. VMT does not directly measure traffic operations but instead is a measure of network use or efficiency, especially if expressed as a function of population or employment (e.g., VMT/capita or VMT/employee). SB 743 did not prevent an agency from continuing to analyze local mobility in terms of delay or LOS as part of other plans (e.g., general plans), studies, congestion management plans, or transportation improvement plans—but these metrics may no longer constitute the basis for CEQA transportation impacts as of July 1, 2020.

To comply with the new legislation, the City adopted its SB 743 VMT Analysis Guidelines on November 8, 2023, with the following intentions:

- Enable proposed development projects to comply with current CEQA requirements as a result of the implementation of SB 743.
- Outline the City's VMT significance thresholds, screening criteria, and methodology for conducting the transportation VMT analysis.
- Determine if mitigation is required to offset a project's significant VMT impacts.
- Identify VMT reduction measures and strategies to mitigate potential impacts below a level of significance.
- Reduce the need to widen or build roads through effective use of the existing transportation network and maximize the use of alternative modes of travel throughout the City.

Within its Guidelines, the City of Encinitas has identified a VMT analysis methodology, established VMT thresholds for CEQA transportation impacts, and identified possible mitigation strategies. The requirements to prepare a detailed transportation VMT analysis apply to all land development projects, except those that meet at least one of the screening criteria. The significance thresholds and specific VMT metrics used to measure VMT are described by land use type below:

- **Residential:** 15% below the existing City-wide average.
- **Employment (includes all employment types—office, commercial, hotel, industrial):** At or below the regional average.
- **Mixed-Use:** Each project component is evaluated per the appropriate metric based on land use type (e.g., residential, employment, and retail).
- **Regional Retail, Regional Recreational, or Regional Public Facilities:** A net increase in total regional VMT using the boundary method.
- **Specific Plans or General Plan Amendments:** Comparison to the region is appropriate because large land use plans can have an effect on regional VMT (akin to how a regional retail project affects regional VMT). The significance thresholds described above apply to specific plans or general plan amendments. In addition, plan buildout/cumulative analysis is needed.

- **Transportation Projects:** Projects that increase motor vehicle capacity (such as constructing a new roadway or adding more vehicle travel lanes to an existing roadway) have the potential to increase vehicle travel, referred to as “induced vehicle travel.” These projects must prepare a VMT analysis.

The City’s Guidelines require that the project applicant must reduce VMT, which can be done by either reducing the number of automobile trips generated by a project or by reducing the distance that people drive.

2.2 Project Objectives

In accordance with CEQA Guidelines Section 15124, the following primary objectives support the purpose of the Project, assist the lead agency in developing a reasonable range of alternatives to be evaluated in this PEIR, and ultimately aid decision-makers in preparing findings and overriding considerations. The primary objective of the Project is to address the mobility needs of the City for all modes of travel and to meet the requirements of State law.

The Project objectives are as follows:

1. Improve the safety, interconnectivity, accessibility, and comfort of all multimodal corridors to maximize the number of trips made by foot, transit/microtransit, micromobility, and bicycle to schools, parks, neighborhoods, the coast, and shopping areas.
2. Provide for, expand, and sustain a mix of transportation modes that meets the existing and future transportation needs of all Encinitas residents and visitors and minimizes impacts to the community and environmental character.
3. Promote a long-term, coordinated program that provides standards and direction for improvements to the public right-of-way to enhance the identity of specific areas and create street design solutions to accommodate all modes of travel.
4. Update existing classifications within the Mobility Element so that the Encinitas circulation network responds to the present and future circulation needs of all users.
5. Consolidate existing and new policies in its various mode-specific, strategic plans—including the Climate Action Plan, Modal Alternatives Plan, Rail Corridor Cross Connect Implementation Plan, and the Active Transportation Plan—into one cohesive citywide framework.

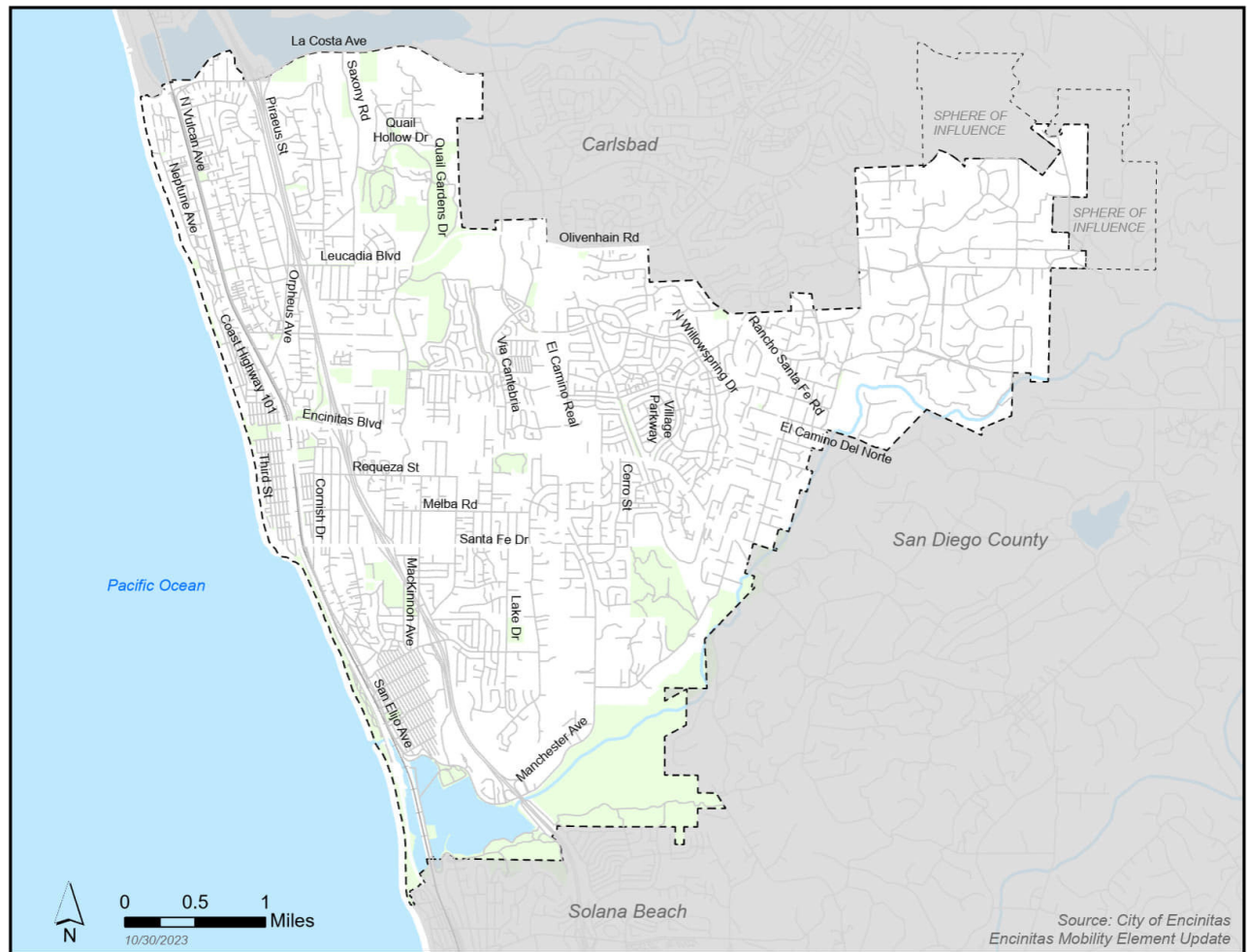
2.3 Project Location and Regional Setting

The Planning Area for the MEU is the City of Encinitas, which is in northern San Diego County, approximately 25 miles north of the City of San Diego. It encompasses approximately 20 square miles and is considered almost fully developed. The City is bordered by the City of Carlsbad to the north, the City of Solana Beach to the south, unincorporated San Diego County to the east, and the Pacific Ocean to the west. Interstate 5 and Coast Highway 101 both cut north south through the western half of the City of Encinitas. **Figure 2-1** shows the Project’s regional location, and **Figure 2-2** shows the Project’s location within City boundaries.

Figure 2-1 Regional Location



Figure 2-2 Project Location



2.4 Project Description

The Mobility Element sets a long-term vision for Encinitas through the establishment of goals, multimodal networks, and supporting policies. It complements regional and state mobility plans and works with the other elements of the Encinitas General Plan, particularly the Land Use Element, to plan for and accommodate the City's mobility needs into the future. The purpose of updating the Mobility Element is to define a safe and efficient circulation system that responds to the mobility needs of all modes and users, as well as to incorporate changes in transportation needs, new technologies, and other projects and General Plan Elements. The City's circulation system, which targets equity among all modes of travel, consists of freeways, streets, bicycle routes, sidewalks, and trails, as well as modes of transportation including cars, buses, trucks, trains, bicycles, e-bicycles and e-scooters, ridesharing, and walking.

2.4.1 Mobility Element Update

The MEU would establish improved mobility for all modes in the City. Evolving community needs and new regulations are changing the way the region and local agencies plan transportation and land use. As a result of these changes, cities are developing ways to target equity among all modes of travel and to accommodate all roadway users, including pedestrians, cyclists, automobiles, and transit riders of all ages and abilities. This Element would analyze the City's transportation network through a new framework that accomplishes the following:

- Prioritizes the movement of people safely and across all modes
- Focuses on full right-of-way widths, including parkways and sidewalks
- Considers land use and context

Within the City boundaries, the MEU would focus on the City's five communities as well as addressing the City as a whole. These communities include Cardiff-by-the-Sea, Old Encinitas, Leucadia, New Encinitas, and Olivenhain. The Mobility Element and the SB 743 VMT Analysis Guidelines make citywide recommendations as they include key centers for housing, recreation, education, and shopping within Encinitas. The Mobility Element is provided in Appendix B.1. to the DEIR.

2.4.1.1 Goals and Policies

The Mobility Element's goals and policies outline future mobility system improvements and provide direction for developing implementation documents. They also guide landowners and City reviews in developing and reusing properties. The Element articulates a plan that is based on established communities, emerging planning themes, recent legislation, equity, and citizen input. The Element's policies include a mix of programmatic and physical strategies that can be implemented over the course of the City's General Plan.

The Mobility Element goals and policies are organized under the following themes:

- Strategic Vision for Mobility. Goal 1: Develop and maintain a mobility system that accommodates the City's diverse needs and land uses, including planned growth.

- **Multimodal Options.** Goal 2: Provide multimodal mobility options that are safe, accessible, and comfortable for all types of users including residents, visitors, and the movement of goods.
- **Vehicle-Miles Traveled and Mode Share.** Goal 3: Reduce automobile vehicle-miles traveled and related impacts to air quality and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, walking, micromobility, and on-demand mobility services.
- **System Connectivity.** Goal 4: Improve system connectivity by adopting multimodal standards, eliminating gaps in mobility networks, and increasing the ease of multimodal and interjurisdictional travel.
- **System Safety.** Goal 5: Maximize the safety of the mobility system through design best practices, regular maintenance, community education, and consistent enforcement.
- **Environmental and Community Impacts.** Goal 6: Balance mobility benefits with minimized impacts to the environment and community.

Refer to the Mobility Element in Appendix B.1. for a comprehensive discussion of each mobility goal and supporting policy. The update to the Element includes a focus on equitable access. For example, Policy 2.1, Equitable Access for All Modes, Ages and Abilities, requires multi-modal options to provide equitable access for all users across all modes, ages, and abilities. This includes accommodations for senior, youth, disabled, low-income, minority, and multi-lingual populations. In addition, Policy 4.5, Coastal Circulation Network, requires system connectivity to foster access to shoreline recreation areas, while maintaining adequate circulation on major coastal access roadways. Future development pursuant to this policy shall target equity among all modes of travel, including automobile, bicycle, micromobility, microtransit, pedestrian, and public transportation. Modification to major coastal access roadways shall be accompanied by public access benefit enhancements promoting multi-modal access, which may include, but is not limited to, increased public transportation services; improved bicycle and pedestrian access; and increased public parking.

2.4.1.2 Mobility Networks

This section presents the City's multimodal mobility networks. It begins by defining a typology for the street right-of-way based on each street type's mobility functions, modal priorities, and land use context. The section concludes with maps of each major modal network, including streets, bicycle/micromobility, trails, and public transit.

2.4.1.3 Street Typology

Streets and public rights-of-way comprise a large portion of the land in Encinitas, and how they are utilized has tremendous influence on mobility, safety, economic development, and overall quality of life. Street typology defines a hierarchy of street types that incorporate not just the street's mobility function, but also its character and adjacent land uses and context. This typology provides a classification system that helps guide future land development, street improvements, and road design projects. **Table 2-1** lists the street types in Encinitas.

Table 2-1 Street Type	
Connector (Prime & Major)	Connects neighborhoods & destinations across longer distances (beyond typical bike/walk distance)
Collector	Provides mobility in, out & through neighborhoods & destinations
Residential Neighborway	Provides local access to residential streets. Often within walksheds of key destinations
Local Street (Unclassified)	Provides direct access to individual residences
Special Designation Corridors	Provides mobility along Coast Highway 101 and El Camino Real, often in accordance with specific plans or other focused plans

Table 2-2 contains additional details, listing all street types in Encinitas, including their contextual settings (urban village, suburban, rural). The table also specifies each street type's vehicular function, number of lanes, median treatment, and typical right-of-way width. Two-way, -left turn lane median treatments are shown in the table as TWLTL. Refer to the City of Encinitas Mobility Analysis Guidelines for additional details including typical cross-sections and multimodal quality standards found in Appendix B.2.

Table 2-2 Detailed Street Typology					
No.	Street Type	Vehicular Function	Lanes (# up to) ¹	Median	Preferred ROW
Connectors Prime (CNP) and Connector Major (CNM) connect neighborhoods and destinations across longer distances (beyond typical bike/walk distance).					
CNP-6M	Suburban Connector	Prime Arterial	6	Raised median	135'
CNP-4N	Suburban Connector	Prime Arterial	4	None	135'
CNM-4M	Suburban Connector	Major Arterial	4	Raised median	100'
CNM-4L	Suburban Connector	Major Arterial	4	TWLTL	100'
Suburban Collectors (SC), Urban Village Collectors (UVC) and Rural Collectors (RC) provide mobility in, out, and through neighborhoods and destinations.					
SC-4M	Suburban Collector	Collector	4	Raised median	75'
SC-4L	Suburban Collector	Collector	4	TWLTL	75'
SC-2M	Suburban Collector	Collector	2	Raised median	75'
SC-2L	Suburban Collector	Collector	2	TWLTL	75'
SC-2N	Suburban Collector	Collector	2	None	75'
SC-1N	Suburban Collector	Collector	1	None	75'
UVC-2M	Urban Village Collector	Collector	2	Raised median	85'
UVC-2L	Urban Village Collector	Collector	2	TWLTL	85'
UVC-2N	Urban Village Collector	Collector	2	None	85'

¹ Any lane count listed for a given roadway classification or street typology represents a notional capacity based on maximum traffic volumes. City Council retains the discretion to reduce lane counts within the classified network, and the lane count within this table is not prescriptive.

Table 2-2 Detailed Street Typology					
No.	Street Type	Vehicular Function	Lanes (# up to) ¹	Median	Preferred ROW
RC-2N	Rural Collector	Collector	2	None	81'
Residential Neighborways (RN) provide local access to residential streets, often within walksheds of key destinations.					
RN-2M	Residential Neighborway	Local	2	Raised median	70'
RN-2L	Residential Neighborway	Local	2	TWLTL	70'
RN-2N	Residential Neighborway	Local	2	None	70'
RN-1N	Residential Neighborway	Local	1	None	70'
Special Designation Corridors provide mobility along Coast Highway 101 (CC) and the El Camino Real (E), often in accordance with specific plans or other focused plans.					
E-6M	El Camino Real Suburban Corridor	Prime Arterial	6	Raised median	150'
CCM--4M	Coast Highway 101 Urban Village Corridor	Major Arterial	4	Raised Median	125'
CC-4M	Coast Highway 101 Urban Village Corridor	Collector	4	None	125'
CC-4L	Coast Highway 101 Urban Village Corridor	Collector	4	TWLTL	125'
CC-3M	Coast Highway 101 Urban Village Corridor	Collector	3	Raised Median	125'
Ft = feet; ROW = right-of-way; TWLTL = Two-way, left-turn lane '=feet					

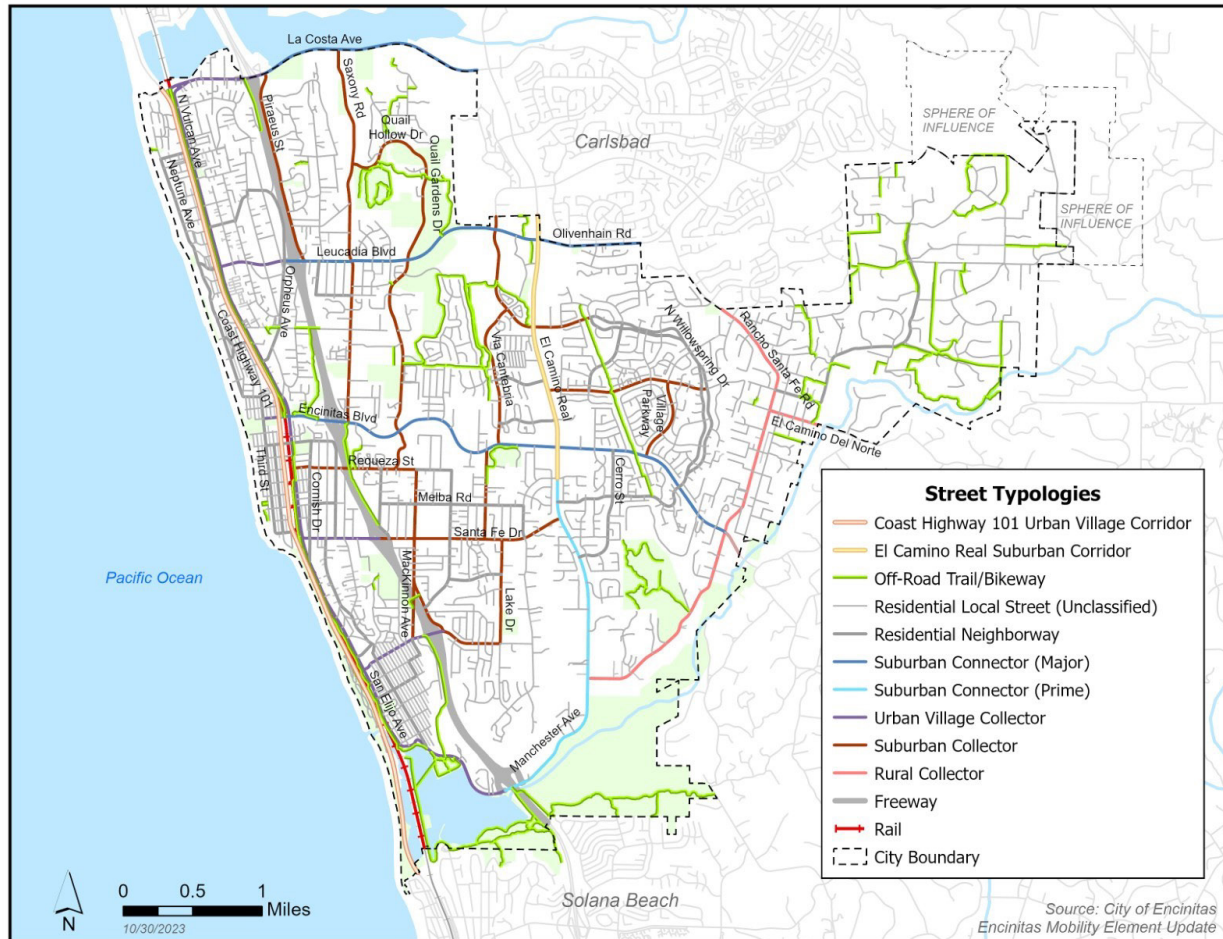
2.4.1.4 Multimodal Networks

The maps below show the proposed major multimodal networks in Encinitas, including streets, bicycle/micromobility, trails, and public transit.

Street Network

Figure 2-3 shows that the street network is the backbone of the City’s multimodal networks, comprising most of the City’s right-of-way and accommodating multiple modes.

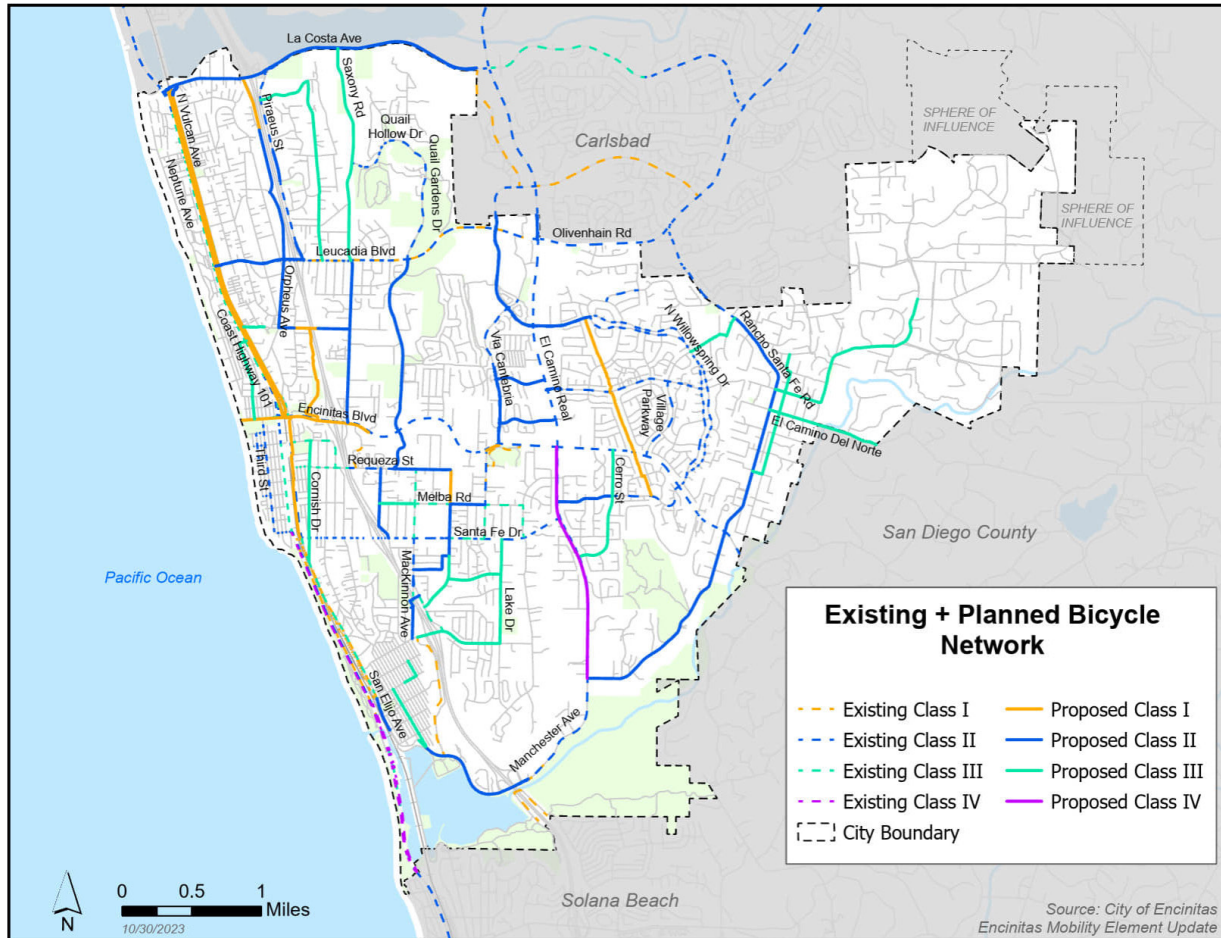
Figure 2-3 Street Network



Bicycle/ Micromobility Network

Figure 2-4 shows the bicycle/micromobility network, which facilitates active transportation for bicycles and micromobility, including scooters, skateboards, other wheeled and assistive devices.

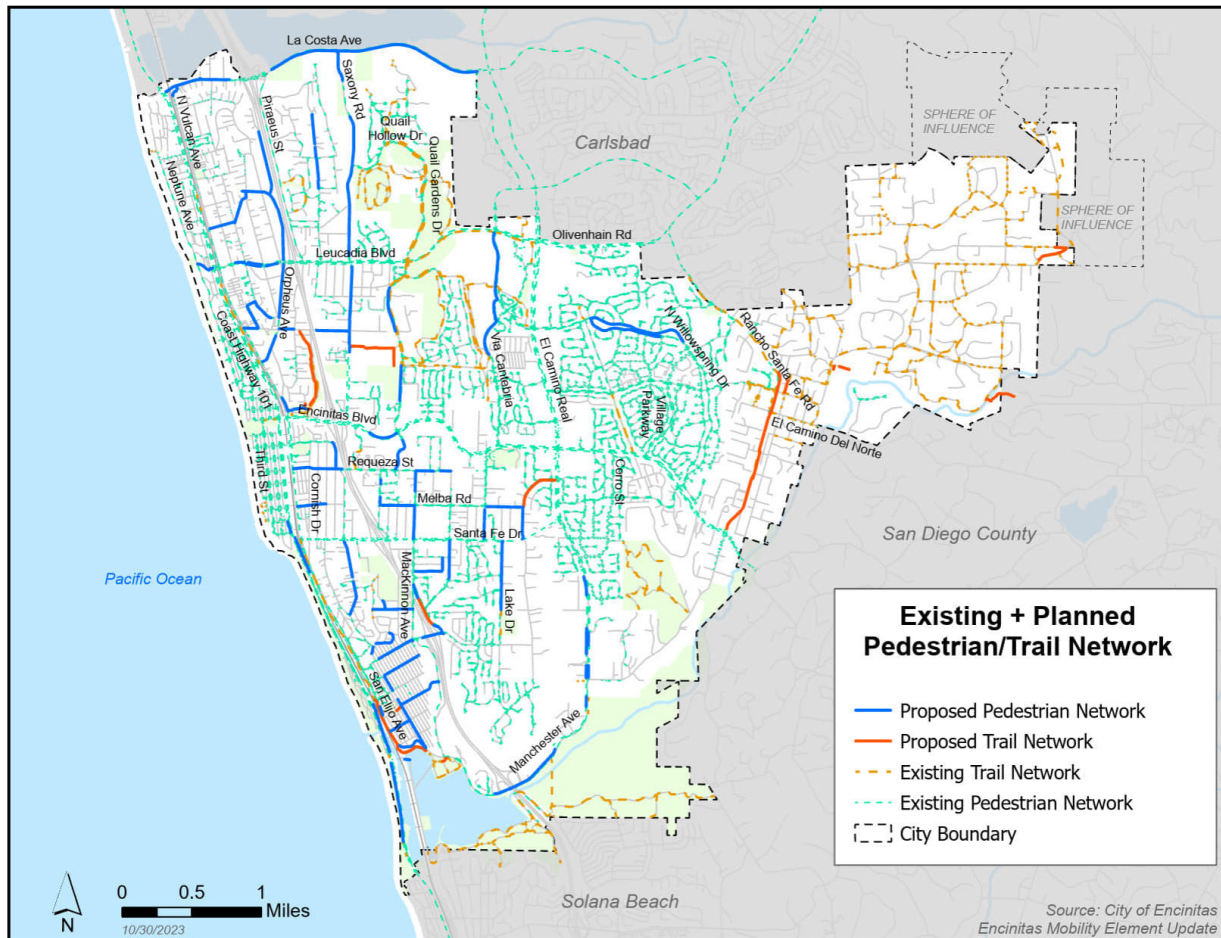
Figure 2-4 Bicycle/Micromobility Network



Trail Network

Figure 2-5 shows the trail network, which facilitates active transportation for pedestrians, and also in many cases for bicycles and micromobility including scooters, skateboards, other wheeled and assistive devices.

Figure 2-5 Trail Network



2.4.2 Mobility Element Implementation (Local Mobility Analysis Guidelines)

The Mobility Analysis Guidelines, or MAGs, are the implementation documents for the Mobility Element and can be found in Appendix B.2. The MAGs outline thresholds and identify when development projects are required to prepare a non-CEQA Local Mobility Analysis (LMA), otherwise known as a Level of Service (LOS) traffic study. The LMA would evaluate the effects of a proposed development project on the safety, operation, access, and mobility of circulation network users (automobiles, bicycles, pedestrians, and transit users) in proximity of the Project. The authority for requiring non-CEQA transportation analysis and requiring project improvement conditions to address identified deficiencies is established in the City's project review authority and General Plan policies, which shape the long-term development of the City, as well as protect its environmental, social, cultural, and economic resources.

The LMA would accomplish the following:

- Specify the City's screening criteria and determine when a study is required, confirm the study area, and establish the methodologies to assess the potential need for off-site operation improvements to the project study area multi-modal transportation network.
- Ensure that local transportation facilities have sufficient capacity to accommodate the project's demand on various modes of travel and ensure that improvements identified by the City are constructed when needed and consistent with the City's standards and policies.
- Ensure consistency with transportation planning documents (such as the Active Transportation Plan (ATP), Trails Master Plan, or an equivalent document).
- Establish measures of effectiveness to maintain vehicular LOS consistent with the Mobility Element of the City's General Plan, which may be amended as needed.
- Facilitate project site access and roadway frontage infrastructure improvements to serve the Project area.

The MAGs include LMA requirements and methodologies, as well as the process for identifying the amount and type of mobility improvement required for each development project. Additionally, the MAGs include a full list of street classifications and typical cross sections for each different type of street classification, consistent with those included in the Mobility Element.

The MAGs would also include the City's SB 743 VMT Analysis Guidelines as a chapter. The City's VMT Analysis Guidelines were adopted by the City Council on November 8, 2023, in advance of and separate from the Mobility Element and MAGs. Once the MAGs are adopted, the VMT Analysis Guidelines would become a part of that implementation document, so that requirements for all types of traffic studies (CEQA VMT and non-CEQA LMA) are contained in the same document.

2.5 Relationship to Regional and Local Plans

2.5.1 Regional Plans

In accordance with federal and State law, SANDAG prepares long-range transportation plans for the San Diego region. These plans include the following:

- A broad regional transportation plan (currently branded as the SANDAG Regional Plan) that is typically updated every four years. It contains regionally significant transportation facilities including highways, railroads, public transit, and active transportation, plus input from local jurisdictions on their own locally focused mobility plans.
- A Regional Transportation Improvement Program (RTIP) that contains a subset of high-priority RTP projects with major regional or state significance. The RTIP is typically updated every two years and serves as an input to the statewide planning and project development process.

2.5.2 Other General Plan Elements

The Mobility Element accounts for the goals and policies of several other General Plan elements to produce an equitable, forward-thinking, and well-balanced plan for the City's transportation network. Goals and policies in the Mobility Element are designed to support and complement those of other elements. Below are descriptions of the other General Plan elements and how they support the Mobility Element.

Land Use Element. The Encinitas Land Use Element provides the background information for all land use-related decisions within Encinitas. The Land Use Element aims to establish a balanced and functional mix of development, provide guidance regarding new development, identify land use opportunities and constraints, and preserve valuable underdeveloped portions of the City. The Element includes several goals and policies, as well as both City-wide and community-specific land use policies, information on zoning, and several overlays/specific plans. The Land Use Element is an important consideration when classifying a circulation network, as land uses and the seating of key destinations determines where and how bikes, pedestrians, transit, and automobiles move throughout the City.

Housing Element. The Housing Element identifies and analyzes the City's existing and projected housing needs and contains a detailed outline and work program of the City's goals, policies, quantified housing objectives, and programs for preservation, improvement, and development of housing for a sustainable future. The Housing Element works in conjunction with the Land Use Element, which establishes the type, intensity, and distribution of land uses, including housing, throughout the City. In turn, the Housing Element also plays a key role in developing a circulation network, as housing and an effective transportation system are imperative to the vitality of the other.

Safety Element. The Safety Element identifies goals and policies that minimize the risks associated with natural and human-made hazards. In addition, the Element identifies the appropriate actions that are needed to respond to a crisis and ways that hazards can be avoided through prudent planning. The Mobility Element works in conjunction with the Safety Element by ensuring that emergency services can move through the City on the circulation network efficiently.

Resource Management Element. The Resource Management Element identifies goals and policies that are designed to preserve significant natural resources within the City. This includes protecting cultural, archeological, and found paleontological resources, as well as ensuring clean air and a healthy environment for all Encinitas residents and visitors. The Mobility Element works with the Resource Management Element by promoting active transportation—and thus cleaner air—and ensuring that the circulation network prioritizes improvements on existing roads, rather than constructing new roads.

Recreation Element. The Recreation Element addresses the City’s existing and future recreational resources, including parks, beaches, trails, and more. The Recreation Element also addresses goals and policies related to the development of new facilities, preserving open space, sustainable coastal development, and recreational access, as well as broadening the range of recreational services that the City provides. The Mobility Element would ensure that residents and visitors to Encinitas are able to utilize the mobility network to access key destinations, including a variety of recreational resources.

Noise Element. The Noise Element quantifies the community noise environment in terms of noise exposure contours. These contours serve as guidelines for the development as outlined in the Land Use, Housing, and Mobility Element to achieve noise-compatible land uses. These quantified noise contours are particularly relevant to the Mobility Element, as traffic-related noise is one of the principal disturbances listed in the Noise Element. The Mobility Element considers context when classifying the circulation network in Encinitas as well as areas with sensitive receptors, where people might be impacted by traffic noise.

2.6 Discretionary Actions

Adopting the MEU would require an amendment to the General Plan and would require approval of the following discretionary actions:

- Adopting a resolution that certifies the PEIR for the General Plan Amendment and adopting the CEQA Findings of Fact.
- Adopting an amendment to the General Plan.

2.7 Future Actions

As allowed in CEQA Guidelines Section 15168, future capital projects and development proposals within the Project area would be reviewed considering the Final PEIR by the City. The PEIR and subsequent Project review process allow a PEIR to serve as the basis for environmental review of subsequent projects. Sections 15182 and 15183 of the CEQA Guidelines provide additional review guidance for projects proposed in accordance with an adopted specific plan, or consistent with an adopted community plan, general plan, or zoning.

Typical projects that could be implemented as envisioned by the MEU include the following:

- Roadway improvements, such as paving and restriping.
- Facilities to support public transit, such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks.
- Facilities to support bicycle and micromobility, such as multiuse paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations.
- Facilities to support pedestrian travel such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping.
- Other mobility-related improvement projects.

If any future projects within the MEU area have potentially significant adverse environmental effects that were not examined in this PEIR, an Initial Study would be prepared for that project, leading to the preparation of either a Negative Declaration, Mitigated Negative Declaration, focused EIR, or addendum or supplement to this PEIR. When additional environmental documentation for a new project is necessary, this PEIR may be incorporated by reference to address regional context, secondary effects, cumulative impacts, alternatives, and other factors that apply to the program.

3 ENVIRONMENTAL ANALYSIS

The following sections analyze the potential environmental impacts that could result from implementation of the Mobility Element Update (MEU; Project). The environmental issues addressed in this chapter include the following (see also Chapter 4, Other CEQA Required Topics, for additional issues covered under CEQA Guidelines Appendix G that were determined to result in less than significant impacts):

- Air Quality
- Greenhouse Gas Emissions and Climate Change
- Noise and Vibration
- Land Use and Planning
- Public Services and Facilities
- Transportation and Circulation

Each issue analysis section includes a summary of existing conditions, the regulatory context, criteria for the determination of impact significance, methodology, an evaluation of potential Project impacts considering the MEU goals and policies and existing regulations, a list of required mitigation measures (if any), and a conclusion of significance after mitigation for impacts identified as requiring mitigation.

3.1 Air Quality

This section analyzes the air quality impacts that could result from implementation of the Mobility Element Update (MEU; Project). The analysis in this section is based on the existing and buildout traffic vehicle miles traveled (VMT) in the Planning Area (Appendix E) and the California Air Resources Board (CARB) Emissions Factor model (EMFAC2021; CARB 2021), and construction emissions modeling using the California Emissions Estimator Model (CalEEMod; CAPCOA 2022). Modeling data is provided in Appendix C.

3.1.1 Existing Conditions

3.1.1.1 Environmental Setting

Air Basin/ Geographic Setting

The state of California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin share the same air masses and therefore are expected to have similar ambient air quality. The Planning Area is located within the San Diego Air Basin (SDAB). The eastern portion of the SDAB is surrounded by mountains to the north, east, and south. These mountains tend to restrict airflow and concentrate pollutants in the valleys and low-lying areas below.

Climate

The project area, like the rest of San Diego County, has a Mediterranean climate characterized by warm, dry summers and mild winters. Long-term measurements at the Oceanside Marina approximately 10 miles north of the Planning Area indicate that winter low temperatures in the City of Encinitas (City) average about 45 degrees Fahrenheit, and summer high temperatures average about 71 degrees Fahrenheit. The average annual precipitation is 10.5 inches, falling primarily from December to March (Western Regional Climate Center 2024).

The dominant meteorological feature affecting the region is the Pacific High-Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that at the base of the coastal mountain range.

Fluctuations in the strength and pattern of winds from the Pacific High-Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the SDAB. Beneath the inversion layer, pollutants become “trapped” as their ability to disperse diminishes. The mixing depth is the area under the inversion layer. Generally, the morning inversion layer is lower than the afternoon inversion layer. The greater the change between the morning and afternoon mixing depths, the greater the ability of the atmosphere to disperse pollutants.

The prevailing westerly wind pattern is sometimes interrupted by regional “Santa Ana” conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada/Utah area and overcomes the

prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

Strong Santa Anas tend to blow pollutants out over the ocean, producing clear days inland. However, at the onset or during breakdown of these conditions, or if the Santa Ana is weak, local air quality may be adversely affected. In these cases, emissions from the South Coast Air Basin to the north are blown out over the ocean, and low pressure over Baja California, Mexico, draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send this cloud of contamination ashore in the SDAB. When this event occurs, the combination of transported and locally produced contaminants produces the worst air quality measurements recorded in the SDAB.

3.1.1.2 Existing Air Quality

National and California Ambient Air Quality Standards

Ambient Air Quality Standards (AAQS) represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. Six criteria pollutants of primary concern have been designated: ozone, carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), lead (Pb), and respirable particulate matter (particulate matter less than 10 microns [PM₁₀] and particulate matter less than 2.5 microns [PM_{2.5}]). The U.S. Environmental Protection Agency (U.S. EPA) developed primary and secondary National AAQS (NAAQS). CARB has developed the California AAQS (CAAQS) and generally has set more stringent limits on the criteria pollutants than the NAAQS. The NAAQS and CAAQS are summarized in **Table 3.1-1** (CARB 2016).

Table 3.1-1 Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone ⁸	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		–		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	No Separate State Standard		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12 µg/m³	15 µg/m³	

Table 3.1-1 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m ³)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–	–	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m ³)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosanine Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) ¹¹	–	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m ³		

Table 3.1-1 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Visibility-Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

mg/m³; PM₁₀ = particulate matter less than 10 microns; PM_{2.5} = particulate matter less than 2.5 microns; ppb = parts per billion; ppm = parts per million; µg/m³ = micrograms per cubic meter; – = not applicable.

¹ California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM₁₀, PM_{2.5}, and visibility-reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

² National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

³ Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

⁴ Any equivalent measurement method which can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.

⁵ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

⁶ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

⁷ Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

⁸ On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

⁹ On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standards of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

¹⁰ To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of ppb. California standards are in units of ppm. To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

Table 3.1-1 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
<p>¹¹ On June 2, 2010, a new 1-hour sulfur dioxide standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.</p> <p>Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.</p> <p>¹² CARB has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.</p> <p>¹³ The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.</p> <p>¹⁴ In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.</p> <p>Source: CARB 2016.</p>						

Air Quality Measurements

Air quality at a particular location is a function of the kinds, amounts, and dispersal rates of pollutants being emitted into the air locally and throughout the basin. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days on which air pollution levels exceed state standards set by CARB or federal standards set by the U.S. EPA. The San Diego Air Pollution Control District (SDAPCD) maintains 10 air quality monitoring stations located throughout the greater San Diego metropolitan region. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Scientists then use these measurements to help forecast daily air pollution levels.

The two closest monitoring stations to the Planning Area are the San Diego – Rancho Carmel Drive monitoring station, located at 11403 Rancho Carmel Drive approximately 9 miles southeast of the Planning Area, and the Camp Pendleton monitoring station located at 21441 West B Street approximately 11 miles north of the Planning Area. The San Diego – Rancho Carmel Drive station measures NO₂ and PM_{2.5}, and the Camp Pendleton station measures ozone, NO₂, and PM_{2.5}. **Table 3.1-2** provides a summary of measurements collected at these monitoring stations for the years 2020 through 2022.

Table 3.1-2 Summary of Air Quality Measurements Recorded at the San Diego – Rancho Carmel Drive and Camp Pendleton Air Quality Monitoring Stations

Pollutant/Standard	2020	2021	2022
San Diego – Rancho Carmel Drive Monitoring Station			
Nitrogen Dioxide			
Maximum 1-hour (ppm)	0.054	0.054	0.056
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	0	0	0
Annual Average (ppm)	0.014	0.013	0.015
PM _{2.5} ¹			
Federal Max. Daily (µg/m ³)	40.2	23.5	14.9
Measured Days Federal 24-hour Standard Exceeded (35 µg/m ³)	1	0	0
Calculated Days Federal 24-hour Standard Exceeded (35 µg/m ³)	3.0	0.0	0.0
Federal Annual Average (µg/m ³)	9.2	8.5	7.6
State Max. Daily (µg/m ³)	--	--	--
State Annual Average (µg/m ³)	--	--	--
Camp Pendleton Monitoring Station			
Ozone			
Federal Maximum 8-hour (ppm)	0.074	0.059	0.067
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	0	0	0
Days 2015 Federal 8-hour Standard Exceeded (0.070 ppm)	3	0	0
State Maximum 8-hour (ppm)	0.074	0.059	0.067
Days State 8-hour Standard Exceeded (0.07 ppm)	3	0	0
Maximum 1-hour (ppm)	0.094	0.074	0.076
Days State 1-hour Standard Exceeded (0.09 ppm)	0	0	0
Nitrogen Dioxide			
Maximum 1-hour (ppm)	0.058	0.059	0.0504
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	0	0	0
Annual Average (ppm)	0.006	--	0.005
PM _{2.5} ¹			
Federal Maximum Daily (µg/m ³)	--	--	18.0
Measured Days Federal 24-hour Standard Exceeded (35 µg/m ³)	--	--	--
Calculated Days Federal 24-hour Standard Exceeded (35 µg/m ³)	--	--	--
Federal Annual Average (µg/m ³)	--	--	--
State Max. Daily (µg/m ³)	61.1	20.7	17.7
State Annual Average (µg/m ³)	9.5	--	--
Source: CARB 2024. PM _{2.5} = particulate matter less than 2.5 microns; ppm = parts per million; mg/m ³ = micrograms per cubic meter; -- = Not available. * Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.			

Ozone

Oxides of nitrogen (NO_x) and hydrocarbons (reactive organic gases [ROG]) are known as the chief “precursors” of ozone. These compounds react in the presence of sunlight to produce ozone, which is the primary air pollutant problem in the SDAB. Because sunlight plays such an important role in its formation, ozone pollution—or smog—is mainly a concern during the daytime in summer months.

The SDAB is currently designated a federal and state non-attainment area for ozone. During the past 25 years, San Diego experienced a decline in the number of days with unhealthy levels of ozone despite the region’s growth in population and vehicle miles traveled. About half of smog-forming emissions in San Diego come from automobiles. Population growth in San Diego has resulted in a large increase in the number of automobiles expelling ozone-forming pollutants. In addition, the occasional transport of smog-filled air from the South Coast Air Basin only adds to the SDAB’s ozone problem. During the past 25 years, however, San Diego has experienced a decline in the number of days with unhealthy levels of ozone despite the region’s growth in population and vehicle miles traveled. This decrease is largely due to stricter automobile emission controls, including more efficient automobile engines.

To address adverse health effects due to prolonged ozone exposure, the U.S. EPA phased out the national 1-hour ozone standard and replaced it with the more protective 8-hour ozone standard. The SDAB is currently a non-attainment area for the previous (1997) national 8-hour standard and is recommended as a non-attainment area for the revised (2008) national 8-hour standard of 0.075 parts per million.

Not all ozone within the SDAB is derived from local sources. As explained above, under certain meteorological conditions, such as during Santa Ana wind events, ozone and other pollutants are transported from the Los Angeles Basin and combine with ozone formed from local emission sources to produce elevated ozone levels in the SDAB.

Local agencies can control neither the source nor the transportation of pollutants from outside the air basin. Therefore, the SDAPCD’s policy has been to control local sources effectively enough to reduce locally produced contamination to clean air standards. Through the use of air pollution control measures outlined in the Regional Air Quality Standards (RAQS), the SDAPCD has effectively reduced ozone levels in the SDAB.

Actions that have been taken in the SDAB to reduce ozone concentrations include:

- **Transportation Control Measures (TCMs) if vehicle travel and emissions exceed attainment demonstration levels.** TCMs are strategies that will reduce transportation-related emissions by reducing vehicle use or improving traffic flow.
- **Enhanced motor vehicle inspection and maintenance program.** The smog check program is overseen by the Bureau of Automotive Repair. The program requires most vehicles to pass a smog test once every two years before registering in the state of California. The smog check program monitors the amount of pollutants that automobiles produce. One focus of the program is identifying “gross polluters,” or vehicles that exceed twice the allowable emissions for a particular model. Regular maintenance and tune-ups, changing the oil, and checking tire

inflation can improve gas mileage and lower air pollutant emissions. It can also reduce traffic congestion due to preventable breakdowns, further lowering emissions.

- **Air Quality Improvement Program.** This program, established by Assembly Bill (AB) 118, is a voluntary incentive program administered by CARB to fund clean vehicle and equipment projects, research on biofuels production and the air quality impacts of alternative fuels, and workforce training.

Carbon Monoxide

The SDAB is classified as a state attainment area and as a federal maintenance area for CO. Until 2003, no violations of the state standard for CO had been recorded in the SDAB since 1991, and no violations of the national standard had been recorded in the SDAB since 1989. The violations that took place in 2003 were likely the result of massive wildfires that occurred throughout the county. No violations of the state or federal CO standards have occurred since 2003.

Small-scale, localized concentrations of CO above the state and national standards have the potential to occur at intersections with stagnation points such as those that occur on major highways and heavily traveled and congested roadways. Localized high concentrations of CO are referred to as “CO hot spots” and are a concern at congested intersections, where automobile engines burn fuel less efficiently and their exhaust contains more CO.

Particulate Matter

Particulate matter is a complex mixture of microscopic solid or liquid particles, including chemicals, soot, and dust. Anthropogenic sources of direct particulate emissions include crushing or grinding operations, dust stirred up by vehicle traffic, and combustion sources such as motor vehicles, power plants, wood burning, forest fires, agricultural burning, and industrial processes. Additionally, indirect emissions may be formed when aerosols react with compounds found in the atmosphere.

Health studies have shown a significant association between exposure to particulate matter and premature death in people with heart or lung diseases. Other important effects include aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and irregular heartbeat (U.S. EPA 2024).

As its properties vary based on the size of suspended particles, particulate matter is generally categorized as PM₁₀ or PM_{2.5}. PM₁₀, occasionally referred to as “inhalable coarse particles,” has an aerodynamic diameter of about one-seventh of the diameter of a human hair. High concentrations of PM₁₀ are often found near roadways, construction, mining, or agricultural operations. PM_{2.5}, occasionally referred to as “inhalable fine particles” has an aerodynamic diameter of about one-thirtieth of the diameter of a human hair. PM_{2.5} is the main cause of haze in many parts of the United States. Federal standards applicable to PM_{2.5} were first adopted in 1997.

Other Criteria Pollutants

The national and state standards for NO₂, oxides of sulfur (SO_x), and the previous standard for lead are being met in the SDAB, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future. As discussed above, new standards for these pollutants have been adopted, and new designations for the SDAB will be determined in the future. The SDAB is also in attainment of the state standards for vinyl chloride, hydrogen sulfides, sulfates, and visibility-reducing particulates.

3.1.2 Regulatory Framework

3.1.2.1 Federal

The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, to achieve the purposes of Section 109 of the CAA [42 USC 7409], the U.S. EPA developed primary and secondary NAAQS. The primary NAAQS "... in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health ..." and the secondary standards "... protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 USC 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties).

An air basin is designated as either attainment or non-attainment for a particular pollutant. Once a non-attainment area has achieved the AAQS for a particular pollutant, it is redesignated as an attainment area for that pollutant. To be redesignated, the area must meet air quality standards for three consecutive years. After redesignation to attainment, the area is known as a maintenance area and must develop a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. The SDAB is a non-attainment area for the federal ozone standard.

3.1.2.2 State

Criteria Pollutants

As discussed, CARB has developed the CAAQS and generally has set more stringent limits on the criteria pollutants than the NAAQS. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 3.1-1). Similar to the federal CAA, the state classifies as either "attainment" or "non-attainment" areas for each pollutant based on the comparison of measured data with the CAAQS. The SDAB is a non-attainment area for the state ozone standards, the state PM₁₀ standard, and the state PM_{2.5} standard.

State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as air quality management plans, monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. CARB is the lead agency for all purposes related to the SIP under

state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

The SDAPCD is responsible for preparing and implementing the portion of the SIP that applies to the SDAB. The SIP plans for San Diego County specifically include the Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County (2012), and the 2004 Revision to the California State Implementation Plan for Carbon Monoxide – Updated Maintenance Plan for Ten Federal Planning Areas.

Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. Diesel-exhaust particulate matter (DPM) emissions have been established as TACs. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (AB 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects of TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics “Hot Spots” Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air.

The goals of the Air Toxics “Hot Spots” Act are to collect emission data, identify facilities having localized impacts, to ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels.

The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the SDAPCD's Regulation XII. Of particular concern statewide are DPM emissions. DPM was established as a TAC in 1998 and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program.

Following the identification of DPM as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (CARB 2000). A stated goal of the plan is to reduce the statewide cancer risk arising from exposure to DPM by 85 percent by 2020. To monitor the effectiveness of these efforts, CARB has supported field campaigns that measure real-world emissions from heavy-duty vehicles, and results indicate that regulations aimed at reducing emissions of DPM have been successful.

In April 2005, CARB published the Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (housing, transportation needs, economics, etc.). It notes that the CARB Handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB Handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day should be avoided when possible.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of diesel particulate and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to DPM will continue to decline.

3.1.2.3 Local

San Diego Air Pollution Control District

The SDAPCD is the agency that regulates air quality in the SDAB. The SDAPCD prepared the RAQS in response to the requirements set forth in the California CAA AB 2595 (SDAPCD 1992) and the federal CAA. Motor vehicles are San Diego County's leading source of air pollution. In addition to these sources, other mobile sources include construction equipment, trains, and airplanes. Reducing mobile-source emissions requires the technological improvement of existing mobile sources and the examination of future mobile sources, such as those associated with new or modification projects (e.g., retrofitting older vehicles with cleaner emission technologies). In addition to mobile sources, stationary sources also contribute to air pollution in the SDAB. Stationary sources include gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources of air pollution are regulated by the local air pollution control or management district—in this case, the SDAPCD.

The SDAPCD is responsible for preparing and implementing the RAQS. As part of the RAQS, the SDAPCD developed TCMs for the air quality plan prepared by the San Diego Association of Governments (SANDAG) in accordance with AB 2595 and adopted by SANDAG on March 27, 1992, as Resolution Number 92-49 and Addendum. The RAQS and TCM set forth the steps needed to accomplish attainment of NAAQS and CAAQS. The RAQS and corresponding TCM are updated periodically. The most recent 2022 RAQS was adopted in 2023.

General Plan/ Local Coastal Program

The General Plan is the primary source of long-range planning and policy direction used to guide growth and preserve the quality of life in the City. The General Plan states that a goal of the City is to analyze proposed land uses to ensure that the designations would contribute to a proper balance of land uses within the community. The relevant goals and policies of the General Plan are included in the existing Circulation Element and Resource Management Element. As the MEU would replace the existing Circulation Element, only the greenhouse-gas-related goal and policies provided in the Resource Management Element are discussed. They include the following (City of Encinitas 1989):

Resource Management Element

- Goal 1: The City will conserve, protect, and enhance the water resources in the Planning Area.
 - Policy 1.1: Require new development to utilize measures designed to conserve water in their construction.
 - Policy 1.10: Promote the use of water efficient sprinkling and gardening systems to include ordinances and technology to encourage drought tolerant plants.
- Goal 6: The City will make every effort to reduce the amount of solid and liquid waste generated in the Planning Area and will identify ways to responsibly deal with these wastes.
 - Policy 6.1: The City will phase in all practical forms of mandatory recycling as soon as possible.
 - Policy 6.2: The City will contract only with waste haulers who will willingly cooperate with the City's recycling effort.
- Goal 9: The City will encourage the abundant use of natural and drought tolerant landscaping in new development and preserve natural vegetation, as much as possible, in undeveloped areas.
 - Policy 9.4: Encourage and adopt standards for the use of drought tolerant and/ or natural landscaping and efficient irrigation systems throughout the City.
- Goal 15: The City will make every effort to conserve energy in the City thus reducing our dependence on fossil fuels.
 - Policy 15.1: The City will encourage the use of alternate energy systems, including passive solar and architectural and mechanical systems, in both commercial and residential development.
 - Policy 15.2: The patterns of proposed subdivisions and the orientation and design of structures on lots shall be designed with the objective of maximizing the opportunities for solar energy use and energy conservation.
 - Policy 15.3: Energy conserving construction standards and requirements shall be enforced in the field inspection of new construction.

The City has also adopted a Local Coastal Program that consists of a Land Use Plan and an Implementation Plan (City of Encinitas 1995). The Land Use Plan includes issues and policies related to the requirements of the Coastal Act. The Implementation plan consists of portions of the City's Municipal Code and the City's various Specific Plan areas, including the Cardiff-by-the-Sea Specific

Plan, Encinitas Downtown Specific Plan, Encinitas North 101 Corridor Specific Plan, and Encinitas Ranch Specific Plan. The Specific Plans refer to the General Plan goals and policies.

3.1.3 Significance Determination Thresholds

Thresholds used to evaluate impacts to air quality are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations [CCR] Sections 15000-15387), Appendix G.

A significant impact to air quality would occur if the project would:

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

The City has not adopted air quality significance thresholds. The SDAPCD also does not provide specific numeric thresholds for determining the significance of air quality impacts under CEQA. However, the SDAPCD does specify Air Quality Impact Analysis (AQIA) trigger levels for new or modified stationary sources (SDAPCD Rules 20.1, 20.2, and 20.3). The SDAPCD does not consider these trigger levels to represent adverse air quality impacts, rather, if these trigger levels are exceeded by a project, the SDAPCD requires an air quality analysis to determine if a significant air quality impact would occur. While, these trigger levels do not generally apply to mobile sources or general land development projects, for comparative purposes these levels are used to evaluate the increased emissions that would be discharged to the SDAB if the project were approved. The air quality impact screening levels used in this analysis are shown in **Table 3.1-3**.

Table 3.1-3 Air Quality Impact Screening Levels			
Pollutant	Emission Rate		
	Pounds/Hour	Pounds/Day	Tons/Year
NO _x	25	250	40
SO _x	25	250	40
CO	100	550	100
PM ₁₀	--	100	15
Lead	--	3.2	0.6
VOC, ROG ¹	--	250	--
PM _{2.5}	--	67	10
CO = carbon monoxide; NOX = oxides of nitrogen; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; ROG = reactive organic gases; SOX = oxides of sulfur; VOC = volatile organic compounds; Source: SDAPCD, Rules 20.1, 20.2, 20.3.			
¹ ROG threshold based on federal General Conformity de minimis levels for ozone precursors.			

3.1.4 Methodology

3.1.4.1 Construction Emissions

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include the following:

- Fugitive dust from earth moving/excavation activities
- Construction equipment exhaust
- Construction-related trips by workers, delivery trucks, and material-hauling trucks
- Construction-related power consumption

The Project would provide a long-term blueprint that guides transportation decision making, plans for diverse modes and mobility options, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The Project would revise the City's existing Circulation Element policies to account for changes made to state law with the recent development of several mode-specific, strategic, community and neighborhood plans to create one, cohesive mobility framework. As the Project is a planning-level document, no specific construction activities are proposed at this time. Construction activities that could occur to implement the mobility network proposed as part of the MEU could include, but are not limited to:

- Roadway improvements such as paving and restriping
- Facilities to support public transit (such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks)
- Facilities to support bicycle and micromobility (such as multi-use paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations),
- Facilities to support pedestrian travel such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping
- Other mobility-related improvement projects

Air pollutants generated by future mobility projects within the Planning Area would vary depending on the number of projects occurring simultaneously and the size of each project.

The exact number and timing of all mobility projects that could occur under buildout of the MEU are unknown. Therefore, construction-related emissions cannot be accurately determined at the program level of analysis. However, construction-related criteria pollutant emissions are dependent on the type and amount of construction equipment; the number of worker, hauling, and delivery trips; and the amount of land disturbed per day. General construction emissions from these sources were calculated to illustrate the potential construction-related air quality impacts that could occur. Based on emissions estimates for similar types of mobility projects, it was assumed that a maximum construction envelope associated with the MEU could include a 5-acre project area with up to eight pieces of heavy-duty construction equipment operating simultaneously for 8 hours per day, 25 hauling and delivery truck

trips, and 15 worker commute trips. For general excavation/construction/installation activities, two excavators, three tractors/loaders/backhoes, one dozer, and one grader were modeled. This is based on CalEEMod default equipment for grading of a 5-acre site with the addition of two excavators. For general paving activities, two cement and mortar mixers, a paver, two rollers, a tractor/loader/backhoe, and two pieces of paving equipment were modeled. This is based on CalEEMod default equipment for the paving of a 5-acre site. Potential construction emissions were calculated using the CalEEMod Version 2022.1 (CAPCOA 2022). CalEEMod output is provided in Appendix C. Although the exact type of construction activity is not known at this level of analysis, this modeled construction scenario is representative of a wide range of construction activities that could occur if the Project were implemented.

3.1.4.2 Mobile Emissions

Vehicle traffic is the main source of emissions in the Planning Area. Regional mobile-source emissions were estimated based on EMFAC2021 (CARB 2021, Appendix C) and the VMT for the Planning Area (Appendix D). The existing year 2016 baseline condition is 1,441,692 VMT. The future year 2050 condition without adoption of the MEU is 1,730,272 VMT. The future year 2050 condition with adoption of the MEU is 1,727,015 VMT. Mobile-source emissions were calculated using EMFAC2021 year 2016 emission factors for the existing baseline condition and year 2050 emission factors for the year 2050 buildout conditions. EMFAC2021 calculation data as well as VMT data used in preparation of the Traffic Impact Analysis Report is provided in Appendix B.

3.1.4.3 Other Sources of Emissions

The Project would not result in the development of any new or altered land uses in the Planning Area. Therefore, other sources of operational emissions that are typically associated with land use development projects, including consumer products, architectural coatings, and energy sources, such as the combustion of natural gas, are not considered in the analysis. Any emissions associated with landscaping equipment from additional tree planting or from pavement restriping during implementation of mobility projects would be negligible and would not be significantly different than existing landscaping and roadway work in the Planning Area and are therefore not included in this analysis.

3.1.5 Issue 1: Plan Consistency

3.1.5.1 Impacts

Project consistency with applicable plans is based on whether a project would conflict with or obstruct implementation of the RAQS and/or applicable portions of the SIP, which would lead to increases in the frequency or severity of existing air quality violations. The RAQS are the applicable regional air quality plan that sets forth the SDAPCD's strategies for achieving the NAAQS and CAAQS. The SDAB is designated a non-attainment area for the federal and state ozone standard. Accordingly, the RAQS were developed to identify feasible emission control measures and provide expeditious progress toward attaining the standards for ozone. The two pollutants addressed in the RAQS are ROG and NO_x, which are precursors to the formation of ozone. Projected increases in motor vehicle usage, population, and growth create challenges in controlling emissions and, by extension, in maintaining and improving air quality. The RAQS were most recently updated in 2022.

The growth projections used by the SDAPCD to develop the RAQS emissions budgets are based on the population, vehicle trends, and land use plans developed in general plans and used by the SANDAG in developing the regional transportation plans and sustainable communities' strategy. As such, projects that propose development that is consistent with the growth anticipated by SANDAG's and/or the General Plan would not conflict with the RAQS. If a project would propose development that is less dense than anticipated by the growth projections, the project would likewise be consistent with the RAQS. In the event a project proposes development that is greater than anticipated in the growth projections, further analysis would be warranted to determine if the project would exceed the growth projections used in the RAQS for the specific subregional area.

The MEU would provide a long-term blueprint that guides transportation decision making, plans for diverse modes and mobility options, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. Development that could occur as a result of Project implementation could include roadway improvements such as paving and restriping; facilities to support public transit (such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks); facilities to support bicycle and micromobility (such as multi-use paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations); and facilities to support pedestrian travel such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping. The Project would not change any of the land use or zoning designations within the Planning Area to allow for increased density or unplanned development and thus would not result in an increase in SANDAG's growth projections. Additionally, the MEU contains goals and policies to reduce congestion, thereby improving air quality, and would result in a decrease in VMT. Therefore, the Project would not obstruct or conflict with implementation of the RAQS, and impacts would be less than significant.

3.1.5.2 Significance of Impacts

The Project would be consistent with the SANDAG growth projections used to develop the RAQS. Additionally, the MEU contains goals and policies to reduce congestion, thereby improving air quality, and would result in a decrease in VMT. Therefore, the Project would not obstruct or conflict with implementation of the RAQS, and impacts would be less than significant.

3.1.5.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.1.6 Issue 2: Criteria Pollutants

3.1.6.1 Impacts

The region is classified as an attainment area for all criterion pollutants except ozone, PM₁₀, and PM_{2.5}. The SDAB is a non-attainment area for the 8-hour federal and state ozone standards. Ozone is not emitted directly but is a result of atmospheric activity on precursors. NO_x and ROG are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone. PM_{2.5} includes fine particles that are found in smoke and haze and are emitted from all types of combustion activities (motor vehicles, power plants, wood burning, etc.) and certain industrial processes. PM₁₀ includes both fine and coarse dust particles, and sources include crushing or grinding operations and dust from paved or unpaved roads.

Air quality impacts can result from the construction and operation of a project, which results in emissions above air quality standards. Construction impacts are short term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional impacts resulting from development, or local effects stemming from sensitive receivers being placed close to roadways or stationary sources.

Development that could occur as a result of Project implementation could include roadway improvements such as paving and restriping; facilities to support public transit (such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks); facilities to support bicycle and micromobility (such as multi-use paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations); and facilities to support pedestrian travel such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping.

Construction

Potential construction-related emissions were calculated using the parameters discussed in Section 3.1.4.1. Construction emissions associated with general excavation/construction/installation activities and with paving activities are summarized in **Table 3.1-4**. CalEEMod output is provided in Appendix C. As discussed in Section 3.1.4.1, this modeled construction scenario is representative of a wide range of construction activities that could occur under project implementation.

As shown in **Table 3.1-4**, maximum representative construction emissions associated with mobility network-related improvements would be less than the applicable thresholds for all criteria pollutants, and impacts would be less than significant.

Table 3.1-4 Summary of Maximum Construction Emissions (pounds per day)						
	Pollutant					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Excavation/Construction/Installation	2.01	18.94	20.94	0.04	4.10	2.19
Paving	1.63	9.55	12.63	0.02	0.93	0.48
Significance Threshold (pounds/day)	250	250	550	250	100	67
Significant Impact?	No	No	No	No	No	No
CO = carbon monoxide; NO _x = oxides of nitrogen; PM ₁₀ = particulate matter less than 10 microns; PM _{2.5} = particulate matter less than 2.5 microns; ROG = reactive organic gases; SO ₂ = sulfur dioxide						
Source: Appendix C						

As shown in **Table 3.1-4**, maximum representative construction emissions associated with mobility network-related improvements would be less than the applicable thresholds for all criteria pollutants, and impacts would be less than significant.

The significance thresholds are based on the SDAPCD AQIA trigger level thresholds to align with attainment of the NAAQS and be protective of public health. Thus, air quality emissions below the significance thresholds would meet the NAAQS. The NAAQS were developed to protect public health,

specifically the health of “sensitive” populations, including asthmatics, children, and the elderly. These standards are continuously updated based on evolving research, including research which relates air quality impacts with health effects (City of Los Angeles 2019). Consequently, as construction emissions would be less than the applicable thresholds, construction activities would not impact any sensitive populations.

All projects would be required to adhere to all existing regulations during construction to protect air quality, including both SDAPCD rules and regulations and existing state regulations. These include, but are not limited to, the following:

- The California Airborne Toxics Control Measure (CCR Title 13, Section 2485) requires that construction contractors minimize equipment idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes.
- SDAPCD Rule 50 (Visible Emissions) prohibits the discharge of any air contaminant other than uncombined water vapor for a period aggregating more than 3 minutes in any 60-minute period that is of a certain opacity specified in the rule. This regulation addresses diesel emissions associated with diesel pile driving, asphalt paving, and other activities that can result in visible emissions.
- SDAPCD Rule 51 (Nuisance) prohibits discharge of air contaminants or other materials that cause injury, detriment, nuisance, or annoyance to a considerable number of persons or that endanger the comfort, repose, health, or safety of such persons or cause injury or damage to business or property.
- SDAPCD Rule 52 (Particulate Matter) prohibits discharge of particulate matter in excess of 0.10 grain per dry standard cubic foot (0.23 grams per dry standard cubic meter) of gas.
- SDAPCD Rule 54 (Dust and Fumes) prohibits discharge of specified quantities of pollutants into the atmosphere within any single hour, including lead and lead compounds, as specified in the regulation.
- SDAPCD Rule 55 (Fugitive Dust Control) prohibits airborne dust beyond the property line for a period aggregating more than 3 minutes in any 60-minute period. This is typically achieved by watering during grading activities, installing erosion control measures and track-out grates or gravel beds and egress points to prevent dirt “track out” onto streets, using soil stabilizers, mulching, or seeding, in addition to other measures.
- SDAPCD Rule 67.0.1 (Architectural Coatings) establishes volatile organic compounds limits for architectural coatings that are produced, sold, or applied within San Diego County.

The exact number and timing of projects that could occur simultaneous with other development within the City is unknown. Air quality impacts are basin-wide, and air quality is affected by all pollutant sources in the basin. As the individual project thresholds are designed to help achieve attainment with cumulative basin-wide standards, they are also appropriate for assessing the project’s contribution to cumulative impacts. Therefore, because emissions for a typical network improvement would be less than the individual project-level thresholds, and because all projects are required to adhere to existing regulations, construction of a typical mobility element improvement project would not result in a

cumulatively considerable net increase of any non-attainment criteria pollutant, and impacts related to construction emissions would be less than significant.

Operation

Mobile-source emissions associated with the baseline year 2016 condition and the future year 2050 condition without and with project implementation were calculated using EMFAC2021. Model inputs assumed year 2016 and year 2050 vehicle emission factors and the VMT associated with each scenario as discussed in Section 3.1.4.2. The model results are summarized in **Table 3.1-5** and EMFAC2021 calculations are provided in Appendix C.

Table 3.1-5 Mobile-Source Emissions (pounds per day)							
Modeled Scenario	VMT	Pollutant					
		ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Baseline Year 2016	1,441,692	218.28	1,396.02	5,782.84	13.60	25.18	23.87
Future Year 2050 without Project	1,730,272	30.75	227.47	1,791.83	10.41	5.69	5.37
Future Year 2050 with Project	1,727,015	30.69	227.04	1,788.46	10.39	5.68	5.36
Future Year 2050 Project Change Over Baseline Year 2016 Emissions	+285,323	-187.59	-1,168.98	-3,993.38	-3.21	-19.50	-18.50
Future Year 2050 Project Change Over Future No Project Emissions	-3,257	-0.06	-0.43	-3.37	-0.02	-0.01	-0.01
CO = carbon monoxide; NO _x = oxides of nitrogen; ROG = reactive organic gases; PM ₁₀ = particulate matter less than 10 microns; PM _{2.5} = particulate matter less than 2.5 microns; SO ₂ = sulfur dioxide Source: Appendix C							

One main goal of the Project is to reduce automobile VMT and related impacts to air quality and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services. The MEU contains goals and policies to reduce congestion, thereby improving air quality. It is not possible to quantify the complete level of VMT reductions associated with implementation of the MEU at this level of analysis (such as implementation of micro transit and bike facilities); therefore, the VMT and mobile-source emissions modeling only includes network changes that can be accounted for in the regional traffic model. Thus, it is likely that additional VMT and associated mobile-source emissions reductions would occur under implementation of the MEU policy framework that would not occur under the no project condition. The Project would not introduce new land uses and therefore would not increase trip generation in the Planning Area. As shown in **Table 3.1-5**, both future year 2050 conditions would decrease emissions compared to the baseline year 2016 condition. This is due to regulations that result in cleaner mobile sources over time. When compared to buildout of the no project condition, the Project would result in a decrease in VMT which would lead to slightly reduced emissions. Therefore, the Project would not result in a cumulatively considerable net increase of any non-attainment criteria pollutant during operation, and impacts related to operational emissions would be less than significant.

Additionally, as the Project would result in a decrease in emissions, it would not result in an increase in adverse health effects. At the regional level, plans such as the RAQS and the Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (see Section 3.2) work to ensure that the SDAB

reaches and maintains attainment of federal and state criteria pollutant standards which, as discussed previously, were developed to protect public health, specifically the health of “sensitive” populations. As discussed in Section 3.1.5 and Section 3.2.6.1, the Project would not obstruct or conflict with implementation of the RAQS or San Diego Forward, the region’s RTP/SCS.

3.1.6.2 Significance of Impacts

Construction

Maximum representative construction emissions associated with mobility facility improvements would be less than the applicable thresholds for all criteria pollutants; therefore, impacts would be less than significant.

Operation

The Project would result in a decrease in VMT and associated operational air quality emissions when compared to the no project condition due to a mobility network that supports multimodal transportation. Therefore, the Project would not result in a cumulatively considerable net increase of any non-attainment criteria pollutant during operation, and impacts would be less than significant.

3.1.6.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.1.7 Issue 3: Sensitive Receptors

3.1.7.1 Impacts

Air quality regulators typically define sensitive receptors as schools (preschool through 12th grade), hospitals, resident care facilities, day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. Residential uses can also be considered sensitive receptors. Sensitive receptors are located throughout the Planning Area. The two primary emissions of concern regarding health effects are DPM and CO.

Construction DPM

Construction activities associated with mobility improvements would result in short-term DPM emissions from the use of off-road diesel equipment and on-road diesel equipment used to bring materials to and from future construction sites throughout the City where roadway and mobility improvements would be implemented. Generation of DPM from construction projects typically occurs in a single area for a short period. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level. The risks are higher if a fixed exposure occurs over a longer period of time. 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; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Although there are sensitive receptors located within and adjacent to the Planning Area, construction equipment would only be located adjacent to a particular sensitive receptor for a short

period of time. Thus, the duration of proposed construction activities near any specific sensitive receptor would be minimal and would be significantly less than the 30-year exposure period used in health risk assessments.

Additionally, with ongoing implementation of U.S. EPA and CARB requirements for cleaner fuels; off-road diesel engine retrofits; and new, low-emission diesel engine types, the DPM emissions of individual equipment would be reduced over time. All construction equipment is subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation, which limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with best available control technology requirements. Engine tier refers to the emissions certification level of an engine as defined in In-Use Off-Road Diesel-Fueled Fleets Regulation 2449(c). The higher the tier, the cleaner the equipment. Implementation of these regulations results in the use of cleaner construction equipment.

DPM generated by potential construction activities is not expected to create conditions where the probability is greater than 10 in 1 million of contracting cancer, or to generate ground-level concentrations of non-carcinogenic TACs that exceed a Hazard Index greater than 1 for the Maximally Exposed Individual. This is due to the limited scope and duration of construction activities required for mobility improvements, the limited amount of time equipment would be located adjacent to any specific sensitive receptor, and implementation of the In-Use Off-Road Diesel-Fueled Fleets Regulation. Therefore, potential construction activities associated with Project implementation would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

Operational DPM

The Project would not change any of the land use or zoning designations within the Planning Area to allow for increased density or unplanned development; therefore, would not result in the generation of additional diesel-fueled vehicles to the Planning Area. Additionally, the project would not include the construction of any sensitive receptors in the vicinity of heavily traveled roadways. Thus, impacts associated with the exposure of sensitive receptors to significant levels of operational DPM would be less than significant.

CO Hotspots

Localized CO concentration is a direct function of motor vehicle activity at signalized intersections (e.g., idling time and traffic flow conditions), particularly during peak commute hours and meteorological conditions. Under specific meteorological conditions, CO concentrations may reach unhealthy levels with respect to local sensitive land uses. Projects that would site sensitive receptors near potential CO hotspots or would contribute vehicle traffic to local intersections where a CO hotspot could occur would be considered as having a potentially significant impact.

The SDAB is a CO maintenance area under the federal CAA. This means that SDAB was previously a non-attainment area and is currently implementing a 10-year plan for continuing to meet and maintain air quality standards. According to the California Department of Transportation's Project-Level Carbon Monoxide Protocol (CO Protocol), in maintenance areas, only projects that are likely to worsen air quality necessitate further analysis. The CO Protocol indicates projects may worsen air quality if they worsen traffic flow, defined as increasing average delay at signalized intersections operating at level of

service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project to operate at LOS E or F. Accordingly, the CO Protocol recommends detailed air quality dispersion modeling for projects that may worsen traffic flow at any signalized intersections operating at LOS E or F.

Due to increased requirements for cleaner vehicles, equipment, and fuels, CO levels in the state have dropped substantially. All air basins are attainment or maintenance areas for CO. Therefore, more recent screening procedures based on more current methodologies have been developed. The Bay Area Air Quality Management District (BAAQMD) developed a screening threshold in their 2022 CEQA Guidelines (BAAQMD 2022). If all the following screening criteria are met, operation of a project would result in a less than significant impact related to CO (BAAQMD 2022):

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.
- Project-generated traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- Project-generated traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The Bay Area and San Diego have the same federal and state CO attainment designations and therefore, experience similar CO concentrations. Thus, these screening volumes are appropriate for evaluating CO impacts in the SDAB.

One main goal of the Project is to reduce automobile VMT and related impacts to air quality and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services. The MEU contains goals and policies to reduce congestion, thereby improving CO concentrations at local intersections. The Project would not introduce new land uses and thus would not result in an increase in trip generation in the Planning Area. Roadway reclassification would result in shift in volumes at intersections; however, these shifts in traffic volumes would not result in an intersection that exceeds 44,000 vehicles per hour. Baseline year 2016 and buildout year 2050 roadway segment volumes without and with implementation of the Project were obtained from the transportation analysis prepared for the project (Appendix E). Based on this analysis, daily traffic volumes on the roadway network would be less than 40,000 average daily trips. A peak hour volume is typically considered to be 10 percent of the average daily volume (Caltrans 2021). Therefore, peak hour volumes on a particular roadway segment would be less than 4,000 vehicles per hour, and the volume at the intersection of two roadways would be less than 8,000 vehicles per hour. Thus, based on BAAQMD screening criteria, the Project would result in a less than significant impact related to CO.

3.1.7.2 Significance of Impacts

Construction DPM

Due to the limited scope and duration of construction activities required for mobility improvements, the limited amount of time equipment would be located adjacent to any specific sensitive receptor, and implementation of the In-Use Off-Road Diesel-Fueled Fleets Regulation, potential construction activities associated with Project implementation would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

CO Hotspots

The Project is not anticipated to result in a CO hotspot because it will not exceed applicable screening criteria for CO hotspots and due to the project overall supporting reductions in VMT. Impacts would be less than significant.

3.1.7.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.1.8 Issue 4: Odors

3.1.8.1 Impacts

Individual responses to odors are highly variable and can result in various effects, including psychological (i.e., irritation, anger, or anxiety) and physiological (i.e., circulatory and respiratory effects, nausea, vomiting, and headache). Generally, the impact of an odor results from a variety of interacting factors such as frequency, duration, offensiveness, location, and sensory perception. The project does not include heavy industrial or agricultural uses that are typically associated with odor complaints. During construction of transportation facility improvements, diesel equipment may generate some nuisance odors. However, exposure to odors associated with project construction would be short term and temporary in nature and would disperse quickly as it leaves the construction area. Further, per CARB's Airborne Toxic Control Measures 13 (CCR Chapter 10 Section 2485), idling time shall not exceed five minutes unless more time is required per engine manufacturers' specifications or for safety reasons. Compliance with this regulation would reduce odors from equipment exhaust. Impacts associated with odors would be less than significant.

3.1.8.2 Significance of Impacts

Odors generated during potential construction activities would be short term, temporary in nature, and would disperse quickly as they leave the construction area and would therefore be less than significant. The project would not result in any operational source of odors.

3.1.8.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.1.9 Conclusion

The Project would be consistent with the SANDAG growth projections used to develop the RAQS. Additionally, the MEU contains goals and policies to reduce congestion, thereby improving air quality, and would result in a decrease in VMT. Therefore, the Project would not obstruct or conflict with implementation of the RAQS, and impacts would be less than significant. The Project would not result in a cumulatively considerable net increase of any non-attainment criteria pollutant during construction or operation. The Project would not expose sensitive receptors to substantial pollutant concentrations. Lastly, the Project would not result in odors that would affect a substantial number of people. All impacts associated with air quality would be less than significant.

3.2 Greenhouse Gas Emissions and Climate Change

This section analyzes the greenhouse gas (GHG) impacts that could result from implementation of the proposed City of Encinitas Mobility Element Update (MEU; Project). The analysis in this section is based on the City's current Climate Action Plan (CAP 2018), the existing and buildout traffic vehicle miles traveled (VMT) in the Planning Area (Appendix E), and the California Air Resources Board (CARB) Emissions Factor model (EMFAC2021). Appendix C provides modeling data.

3.2.1 Existing Conditions

3.2.1.1 Environmental Setting

Understanding Global Climate Change

Global climate change is a change in the average weather of the Earth, which can be measured by wind patterns, storms, precipitation, and temperature. The Earth's climate is in a state of constant flux with periodic warming and cooling cycles. For most of the Earth's geologic history, these periods of warming and cooling have been the result of many complicated interacting natural factors that include volcanic eruptions, the amount of water, vegetation, and ice covering the earth's surface, subtle changes in the earth's orbit, and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the Earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances not found in nature. This in turn has led to a marked increase in the emissions of gases shown to influence the world's climate. These gases, termed "greenhouse" gases, influence the amount of heat trapped in the Earth's atmosphere. Recently observed increased concentrations of GHGs in the atmosphere appear to be related to increases in human activity. Therefore, the current cycle of "global warming" is believed to be largely due to human activity. Because it is believed that the increased GHG concentrations around the world are related to human activity and the collective of human actions taking place throughout the world, it is quintessentially a global or cumulative issue.

Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and manmade. Each GHG has variable atmospheric lifetime and global warming potential (GWP). The atmospheric lifetime of the gas is the average time a molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. GWP is a measure of the potential for a gas to trap heat and warm the atmosphere. Although GWP is related to its atmospheric lifetime, many other factors, including chemical reactivity of the gas, also influence GWP. GWP is reported as a unitless factor representing the potential for the gas to affect global climate relative to the potential of carbon dioxide (CO₂). Because CO₂ is the reference gas for establishing GWP, by definition its GWP is 1. Although methane (CH₄) has a shorter atmospheric lifetime than CO₂, it has a 100-year GWP of 28; this means that CH₄ has 28 times more effect on global warming than CO₂.

The U.S. Environmental Protection Agency (U.S. EPA 2010) officially defines GWP as “The cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas.”

GHG emissions estimates are typically represented in terms of equivalent metric tons of CO₂ (MT CO₂E). CO₂E emissions are the product of the amount of each gas by its GWP. The effects of several GHGs may be discussed in terms of MT CO₂E and can be summed to represent the total potential of these gases to warm the global climate. **Table 3.2-1** summarizes some of the most common GHGs.

The U.S. EPA and other organizations occasionally update the GWP values they use. This can be due to updated scientific estimates of the energy absorption or lifetime of the gases or to changing atmospheric concentrations of GHGs that result in a change in the energy absorption of one additional ton of a gas relative to another. The GWPs shown in **Table 3.2-1** are the most current. However, in the California Emissions Estimator Model (CalEEMod)—which is the model used in this analysis to calculate emission—CH₄ has a GWP of 25 and nitrous oxide (N₂O) has a GWP of 298, consistent with the 2017 *Climate Change Scoping Plan Update, the Strategy for Achieving California’s 2030 Greenhouse Gas Target* (2017 Scoping Plan; CARB 2017).

All of the gases in **Table 3.2-1** are produced by either biogenic (natural) or anthropogenic (human) sources or both. These are the GHGs of primary concern in this analysis. CO₂ would be emitted by the proposed Project due to the combustion of fossil fuels in vehicles (including construction), from electricity generation and natural gas consumption, from water use, and from solid waste disposal. Smaller amounts of CH₄ and N₂O would be emitted from the same project operations.

Gas	Atmospheric Lifetime (years)	100-year GWP	20-year GWP
Carbon dioxide (CO ₂)	50–200	1	1
Methane (CH ₄)	12.4	25/28*	84
Nitrous oxide (N ₂ O)	121	298/265*	264
HFC-23	222	12,400	10,800
HFC-32	5.2	677	2,430
HFC-125	28.2	3,170	6,090
HFC-134a	13.4	1,300	3,710
HFC-143a	47.1	4,800	6,940
HFC-152a	1.5	138	506
HFC-227ea	38.9	3,350	5,360
HFC-236fa	242	8,060	6,940
HFC-43-10mee	16.1	1,650	4,310
CF ₄	50,000	6,630	4,880
C ₂ F ₆	10,000	11,100	8,210
C ₃ F ₈	2,600	8,900	6,640
C ₄ F ₁₀	2,600	9,200	6,870

Table 3.2-1 Global Warming Potentials and Atmospheric Lifetimes (years)

Gas	Atmospheric Lifetime (years)	100-year GWP	20-year GWP
c-C4F8	3,200	9,540	7,110
C5F12	4,100	8,550	6,350
C6F14	3,100	7,910	5,890
SF6	3,200	23,500	17,500

Source: Intergovernmental Panel on Climate Change (IPCC) 2007, 2014.

* The CH4 and N2O 100-year GWPs included in CalEEMod are 25 and 298, respectively, from the IPCC Fourth Assessment Report. All other values are from the current Fifth Assessment Report.

GWP = Global Warming Potential; HFC = hydrofluorocarbons

State and Regional GHG Inventories

The CARB performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of CO₂ equivalent (MMT CO₂E). **Table 3.2-2** shows the estimated statewide GHG emissions for the years 1990, 2012, and 2021. Although annual GHG inventory data is available for years 2000 through 2021, these three years are highlighted in **Table 3.2-2** because 1990 is the baseline year for established reduction targets, 2012 corresponds to the same year for which inventory data for the City is available, and 2021 is the most recent data available.

Table 3.2-2 California GHG Emissions by Sector

Sector	1990 ¹ Emissions in MMT CO ₂ E (% total) ²	2012 ³ Emissions in MMT CO ₂ E (% total) ²	2021 ³ Emissions in MMT CO ₂ E (% total) ²
Electricity Generation	110.5 (25.7%)	99.7 (22.9%)	62.6 (16.4%)
Transportation	150.6 (35.0%)	161.8 (37.2%)	149.5 (39.2%)
Industrial	105.3 (24.4%)	91.4 (21.0%)	85.3 (22.4%)
Commercial	14.4 (3.4%)	19.5 (4.5%)	22.5 (5.9%)
Residential	29.7 (6.9%)	27.8 (6.4%)	30.5 (8.0%)
Agriculture and Forestry	18.9 (4.4%)	35.2 (8.1%)	30.9 (8.1%)
Not Specified	1.3 (0.3%)	--	--
Total ⁴	430.7	435.4	381.3

Source: CARB 2007 and 2023.

¹ 1990 data was obtained from the CARB 2007 source and are based on IPCC fourth assessment report GWPs.

² Percentages may not total 100 due to rounding.

³ 2012 and 2021 data was retrieved from the CARB 2023 source and are based on IPCC fourth assessment report GWPs.

⁴ Totals may vary due to independent rounding.

MMT CO₂E = million metric tons of CO₂ equivalent

As shown in **Table 3.2-2**, statewide GHG source emissions totaled approximately 431 MMT CO₂E in 1990, 435 MMT CO₂E in 2012, and 381 MMT CO₂E in 2021. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. **Table 3.2-2** shows that transportation-related emissions consistently contribute to the most GHG emissions.

Encinitas GHG Inventories

The City prepared a baseline year 2012 GHG emissions inventory as a part of its 2018 CAP. The results of the inventory for 2012 are summarized in **Table 3.2-3**. Similar to the statewide emissions, transportation related GHG emissions contributed the most citywide, followed by emissions associated with energy use.

Table 3.2-3 Encinitas GHG Emissions in 2012		
Source	2012 Baseline Emissions	
	MMT CO ₂ E	percentage
On-Road Transportation	244,172	53%
Electricity	113,556	25%
Natural Gas	62,027	14%
Solid Waste	13,610	3%
Water	14,299	3%
Off-Road Equipment	9,138	2%
Wastewater	2,155	0.5%
Total Inventory	459,000	100%
Source: City of Encinitas 2020.		
Note: Total may vary due to independent rounding.		
MMT CO ₂ E = million metric tons of CO ₂ equivalent		

3.2.2 Regulatory Framework

3.2.2.1 Federal

The federal Corporate Average Fuel Economy standards determine the fuel efficiency of certain vehicle classes in the U.S. The National Highway Traffic Safety Administration sets Corporate Average Fuel Economy standards for passenger cars and for light trucks (collectively, light-duty vehicles), and separately sets fuel consumption standards for medium- and heavy-duty trucks and engines. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel. The most recent standards require an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8% annually for model years 2024 and 2025, and 10% annually for model year 2026.

3.2.2.2 State

Executive Orders and Legislation

Executive Order S-3-05

This Executive Order (EO) established the following GHG emission reduction targets for the State of California:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80% below 1990 levels

This EO also directs the secretary of the California Environmental Protection Agency to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006 and has been updated every two years.

Executive Order B-30-15

This EO establishes an GHG emission reduction goal for the State of California by 2030 of 40% below 1990 levels. This EO also directed all State agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the 2030 goal, as well as the preexisting, long-term 2050 goal identified in EO S-3-05. Additionally, this EO directed CARB to update its Climate Change Scoping Plan to address the 2030 goal.

Assembly Bill 1279

Assembly Bill (AB) 1279, approved in September 2022, requires the state to achieve net-zero GHG emissions as soon as possible (but no later than 2045), achieve and maintain net-negative GHG emissions thereafter, and ensure that statewide anthropogenic GHG emissions are reduced to at least 85% below 1990 levels by 2045. The bill would require the State board to work with relevant State agencies for two purposes: to ensure that updates to the scoping plan identify and recommend measures to achieve these policy goals; and to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions as well as carbon capture, utilization, and storage technologies.

California Global Warming Solutions Act

In response to EO S-3-05, the California Legislature passed AB 32, the California Global Warming Solutions Act of 2006 (CARB), and thereby enacted Sections 38500–38599 of the California Health and Safety Code. AB 32 requires CARB to establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. AB 32 also required CARB to adopt a plan by January 1, 2009, indicating how emission reductions would be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

In 2008, CARB estimated that annual statewide GHG emissions were 427 MMT CO₂E in 1990 and would reach 596 MMT CO₂E by 2020 under a business as usual (BAU) condition (CARB 2008). To achieve the mandate of AB 32, CARB determined that a 169 MMT CO₂E (or approximate 28.5%) reduction in BAU emissions was needed by 2020. In 2010, CARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. CARB determined that the economic downturn reduced the 2020 BAU by 55 MMT CO₂E; as a result, achieving the 1990 emissions level by 2020 required a reduction in GHG emissions of 21.7% (not 28.5%) from the 2020 BAU. California achieved its 2020 goal in 2015 (CARB 2023).

Approved in September 2016, Senate Bill (SB) 32 updates the California Global Warming Solutions Act of 2006 and enacts EO B-30-15. Under SB 32, the state would reduce its GHG emissions to 40% below 1990 levels by 2030. This is equivalent to an emissions level of approximately 260 MMT CO₂E for 2030. In implementing the 40% reduction goal, CARB is required to prioritize emissions reductions to consider the social costs of the emissions of GHGs; where “social costs” is defined as “an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year.”

Climate Change Scoping Plan

As directed by the California Global Warming Solutions Act of 2006, in 2008, CARB adopted the Climate Change Scoping Plan: A Framework for Change (Scoping Plan), which identified the main strategies California implemented to achieve the GHG reductions necessary to reduce forecasted BAU emissions in 2020 to the state’s historic 1990 emissions level (CARB 2008). The 2020 reduction goals were met. In November 2017, CARB released the 2017 Climate Change Scoping Plan Update, the Strategy for Achieving California’s 2030 Greenhouse Gas Target (2017 Scoping Plan; CARB 2017). The 2017 Scoping Plan identifies state strategies for achieving the state’s 2030 GHG emissions reduction target codified by SB 32. Measures under the 2017 Scoping Plan Scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program, Renewables Portfolio Standard (RPS), Sustainable Communities Strategy (SCS), Short-Lived Climate Pollutant (SLCP) Reduction Strategy, and the Cap-and-Trade Program. Additionally, the 2017 Scoping Plan proposes new policies to address GHG emissions from natural and working lands.

The 2022 Scoping Plan was adopted in December 2022 (CARB 2022). The 2022 Scoping Plan assesses the progress towards the 2030 GHG emissions reduction target identified in the 2017 Scoping Plan and lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85% below 1990 levels no later than 2045, as directed by AB 1279. The 2022 Scoping Plan identifies strategies related to clean technology, energy development, natural and working lands, and others, and is designed to meet the State’s long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

Regional Emissions Targets – SB 375

SB 375, the 2008 Sustainable Communities and Climate Protection Act, was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG-reduction targets, and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a SCS or

Alternative Planning Strategy to address GHG-reduction targets from cars and light-duty trucks in the context of that MPO's Regional Transportation Plan (RTP). The San Diego region's MPO is the San Diego Association of Governments (SANDAG). In 2010, CARB set targets for the SANDAG region of a 7% reduction in GHG emissions per capita from automobiles and light -duty trucks compared to 2005 levels by 2020 and a 13% reduction by 2035. These targets are periodically reviewed and updated. CARB's current targets for the SANDAG region are a reduction of 15% by 2020 and 19% by 2035.

Renewables Portfolio Standard

The RPS promotes diversification of California's electricity supply and decreased reliance on fossil fuel energy sources. Renewable energy includes wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Originally adopted in 2002 with a goal to achieve a 20% renewable energy mix by 2020 (referred to as the Initial RPS), the goal has been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33% by 2020. In April 2011, SB 2 (1X) codified California's 33% RPS goal. SB 350 (2015) increased California's renewable energy mix goal to 50% by 2030. SB 100 (2018) further increased the standard set by SB 350 establishing the RPS goal of 44% by the end of 2024, 52% by the end of 2027, and 60% by 2030.

3.2.2.3 Local

Regional Transportation Plan/ Sustainable Communities Strategy

San Diego Forward: The 2021 Regional Plan is the 2050 RTP prepared by SANDAG and adopted in December 2021 (SANDAG 2021). The RTP establishes an implementation plan for how the region will grow over the next 30 years. Developed in accordance with California SB 375, the RTP includes a SCS. An SCS demonstrates how the region will meet its GHG-reduction targets through integrated land use, housing, and transportation planning. While the purpose of an SCS is to reduce GHG emissions due to mobile sources, it also results in a decrease in mobile sources of criteria pollutants. Enhanced public transit service combined with incentives for land use development that provides a better market for public transit will play an important role in the SCS.

The SCS focuses on the following five main strategies, referred to as the 5 Big Moves, which will result in a more efficient transportation system:

- Complete Corridors – Complete corridors act as the backbone of the entire regional transportation system, using technology, infrastructure improvements, pricing, and connectivity to support all forms of movement.
- Transit Leap – Transit leap offers people a network of high-capacity, high-speed, and high-frequency transit services that will incorporate new modes of transit while also providing improved existing services.
- Mobility Hubs – Mobility hubs are the centers of activity where a high concentration of people, destinations, and travel choices converge. They offer on-demand travel options and safe streets to enhance connections to high-quality transit while also making it easier for people to take short trips without needing a car.

- Flexible Fleets – Flexible fleets offer people a variety of on-demand, shared vehicles, including microtransit, bikeshare, scooters, and other modes of transportation, to connect them to transit and make travel easy within Mobility Hubs.
- Next Operating System – Next OS refers to an integrated digital platform that ties the transportation system together. Next OS enables the transportation system to be managed in real time so that people can be connected immediately to the modes of transportation that work best for them for any given situation and at any time.

General Plan/ Local Coastal Program

The General Plan is the primary source of long-range planning and policy direction used to guide growth and preserve the quality of life in Encinitas. The General Plan states that a goal of the City is to analyze proposed land uses to ensure that the designations would contribute to a proper balance of land uses within the community. The relevant goals and policies of the General Plan are included in the existing Circulation Element and Resource Management Element. As the MEU would replace the existing Circulation Element, only the GHG-related goal and policies provided in the Resource Management Element are discussed. They include the following (City of Encinitas 1989):

Resource Management Element

- Goal 1: The City will conserve, protect, and enhance the water resources in the Planning Area.
 - Policy 1.1: Require new development to utilize measures designed to conserve water in construction.
 - Policy 1.10: Promote the use of water efficient sprinkling and gardening systems to include ordinances and technology to encourage drought tolerant plants.
- Goal 6: The City will make every effort to reduce the amount of solid and liquid waste generated in the Planning Area and will identify ways to responsibly deal with these wastes.
 - Policy 6.1: The City will phase in all practical forms of mandatory recycling as soon as possible.
 - Policy 6.2: The City will contract only with waste haulers who will willingly cooperate with the City's recycling effort.
- Goal 9: The City will encourage the abundant use of natural and drought tolerant landscaping in new development and preserve natural vegetation, as much as possible, in undeveloped areas.
 - Policy 9.4: Encourage and adopt standards for the use of drought-tolerant and natural landscaping as well as efficient irrigation systems throughout the City.
- Goal 15: The City will make every effort to conserve energy in the City, thus reducing our dependence on fossil fuels.
 - Policy 15.1: The City will encourage the use of alternate energy systems, including passive solar and architectural and mechanical systems, in both commercial and residential development.

- Policy 15.2: The patterns of proposed subdivisions and the orientation and design of structures on lots shall be designed with the objective of maximizing the opportunities for solar energy use and energy conservation.
- Policy 15.3: Energy conserving construction standards and requirements shall be enforced in the field inspection of new construction.

The City has also adopted a Local Coastal Program that is comprised of a Land Use Plan and an Implementation Plan (City of Encinitas 1995). The Land Use Plan includes issues and policies related to the requirements of the Coastal Act. The Implementation Plan consists of portions of the City's Municipal Code and the City's various Specific Plan areas, including the Cardiff-by-the-Sea Specific Plan, the Encinitas Downtown Specific Plan, the Encinitas North 101 Corridor Specific Plan, and the Encinitas Ranch Specific Plan. The Specific Plans refer to the General Plan goals and policies.

Climate Action Plan

Encinitas adopted its CAP in January 2018, with a revision in November 2020 (City of Encinitas 2020). The CAP contains GHG emissions inventory, projections, goals, reduction measures, and actions to reduce Citywide GHG emissions and achieve the City's 2020 and 2035 reduction targets. The CAP sets targets to reduce emissions 13% below 2012 levels by 2020 and 41% below 2012 levels by 2030. To achieve these goals, the CAP establishes GHG-reduction strategies and goals which are summarized in **Table 3.2-4**.

Table 3.2-4 CAP Strategies and Goals		
Strategy	Goals	Measures
Strategy 1: Building Efficiency	Goal 1.1: Reduce Building Energy Consumption	BE-1: Adopt a Residential Energy Efficiency Ordinance
		BE-2: Require Decarbonization of New Residential Buildings
		BE-3: Adopt Higher Energy Efficiency Standards for Commercial Buildings
		BE-4: Require Decarbonization of New Commercial Buildings
	Goal 1.2: Reduce Municipal Operation Energy Consumption	MBE-1: Continue Implementation of Energy Efficient Projects in Municipal Facilities
Strategy 2: Renewable Energy	Goal 2.1: Achieve 100% Renewable Electricity Supply in Homes and Businesses	RE-1: Establish a Community Choice Energy Program
		RE-2: Require New Homes to Install Solar Photovoltaic Systems
		RE-3: Require Commercial Buildings to Install Solar Photovoltaic Systems
	Goal 2.2: Increase Renewable Electricity Supply in Municipal Operations	MRE-1: Supply Municipal Facilities with Onsite Renewable Energy
Strategy 3: Water Efficiency	Goal 3.1: Reduce City-wide Potable Water Consumption	WE-1: Regularly Conduct Water Rate Studies and Implement Approved Water Rates

Table 3.2-4 CAP Strategies and Goals		
Strategy	Goals	Measures
Strategy 4: Clean and Efficient Transportation	Goal 4.1: Reduce Vehicle Miles Traveled	CET-1: Complete and Implement the Citywide Active Transportation Plan
		CET-2: Implement a Local Shuttle System
	Goal 4.2: Reduce On-road Fuel Use	CET-3: Improve Traffic Flow
	Goal 4.3: Increase Use of Alternative Fuels.	CET-4: Require Residential Electric Vehicle Charging Stations
		CET-5: Require Commercial Electric Vehicle Charging Stations
		MCET-1: Transition to Zero Emission Vehicle Municipal Fleet
		MCET-2: Adopt a Municipal Employee Telecommute Policy
Strategy 5: Reduce Off-Road Equipment	Goal 5.1: Reduce Off-Road Fuel Use	OR-1: Adopt a Leaf Blower Ordinance to Limit Use of 2-stroke Leaf Blowers
Strategy 6: Zero Waste	Goal 6.1: Divert Solid Waste	ZW-1: Implement a Zero Waste Program
Strategy 7: Carbon Sequestration	Goal 7.1: Increase Urban Tree Cover	CS-1: Develop and Implement an Urban Tree Planting Program

Ordinances and Programs

A number of ordinances and programs have been adopted and implemented to support the CAP GHG-reduction strategies and goals. Ordinances related to building energy efficiency, renewable energy, water efficiency, leaf blowers, and waste have been adopted and implemented, however, they are not directly related to the MEU and are not discussed in this analysis. The programs most applicable to the Project include the Active Transportation Plan (ATP, City of Encinitas 2018) and the Modal Alternatives Project (MAP, City of Encinitas 2023).

The CAP established a goal of completing and implementing a citywide ATP. An ATP addresses local and regional bike and pedestrian travel by establishing proposed biking and walking facilities and improvements to multimodal connections to public transit. The City completed and adopted its ATP on August 22, 2018. The implementation of cost-effective projects has and will continue to be initiated and major projects will be incorporated into the City's Capital Improvement Plan based on project priority and availability of funding.

In 2020, the City received funding through the Caltrans Sustainable Communities Grant to begin work on the development of the MAP, which directly implements the ATP. The ATP identified needed routes, gap closures, safety considerations, and facility options. The purpose of the MAP is to provide City staff with a comprehensive list of community-prioritized ATP bike and pedestrian projects, so that the City is well-positioned to apply for grant funding.

3.2.3 Significance Determination Thresholds

Thresholds used to evaluate impacts to GHG emissions are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the Project would do either of the following:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or^{[1][SEP]}
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.^{[1][SEP]}

State CEQA Guidelines Section 15064.4 states that “the determination of the significance of greenhouse gas emissions (GHG) calls for careful judgment by the lead agency, consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project.”

Further, Section 15064.4(b) states that a lead agency should consider the following non-exclusive factors when assessing the significance of GHG emissions:

1. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

State CEQA Guidelines Section 15064(h)(1) states that “the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable.” A cumulative impact may be significant when the project’s incremental effect, though individually limited, is cumulatively considerable. Therefore, for the purposes of this analysis, the significance of impacts was evaluated using the criteria above. Specifically, the following analysis determines that the Project would not result in a significant GHG impact because it would result in an overall reduction in GHG emissions in the Planning Area. The Project was also evaluated for consistency with state and local GHG-reductions plans including the 2017 and 2022 Scoping Plan, SANDAG’s RTP/SCS, and the City’s CAP.

3.2.4 Methodology

3.2.4.1 Construction Emissions

Construction activities emit GHGs primarily through combustion of fuels (mostly diesel) in the engines of off-road construction equipment, and through combustion of diesel and gasoline in on-road

construction vehicles and construction worker commute vehicles. Smaller amounts of GHGs are also emitted through the energy use embodied in water use for fugitive dust control.

The Project would provide a long-term blueprint that guides transportation decision making, plans for diverse modes and mobility options, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The Project would revise the City's existing Circulation Element policies to account for changes made to state law with the recent development of several mode-specific, strategic, community and neighborhood plans to create one, cohesive mobility framework. As the Project is a planning-level document, no specific construction activities are proposed at this time. Construction activities that could occur to implement the mobility network proposed as part of the MEU could include, but are not limited to:

- Roadway improvements such as paving and restriping
- Facilities to support public transit (such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks)
- Facilities to support bicycle and micromobility (such as multi-use paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations)
- Facilities to support pedestrian travel such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping
- Other mobility-related improvement projects

GHGs generated by future mobility projects within the Planning Area would vary depending on the number of projects occurring simultaneously and the size of each project. The exact number and timing of all mobility projects that could occur under buildout of the MEU are unknown. Therefore, construction-related emissions cannot be accurately determined at the program level of analysis. However, for informational purposes, construction-related GHG emissions were calculated for a typical 5-acre project. The methodology for modeling construction emissions is discussed in detail in Section 3.1.4.1. Based on these parameters, and typical construction the project is anticipated to result in approximately 168 MT CO₂E. Based on guidance from the South Coast Air Quality Management District (SCAQMD), total construction GHG emissions resulting from a project should be amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of a project (SCAQMD 2009). When amortized over 30 years, construction emissions would be approximately 5 MT CO₂E annually.

3.2.4.2 Mobile Emissions

Vehicle traffic is the main source of emissions in the Planning Area. Regional mobile source emissions were estimated based on CARB's Emission Factor model (EMFAC2021; CARB 2021) and the VMT for the Planning Area (Appendix E). The existing year 2016 baseline condition is 1,441,692 VMT. The future year 2050 condition without adoption of the MEU is 1,730,272 VMT. The future year 2050 condition with adoption of the MEU is 1,727,015 VMT. Mobile-source emissions were calculated using EMFAC2021 year 2016 emission factors for the existing baseline condition and year 2050 emission factors for the year 2050 buildout conditions. Appendix C provides EMFAC calculation data as well as VMT data used in preparation of the Traffic Impact Analysis Report.

3.2.4.3 Other Sources of Emissions

Other sources of operational emissions that are typically associated with land use development projects include energy consumption (electricity and natural gas), area sources (landscaping equipment), water consumption, and solid waste generation. However, the Project would not result in any additional land uses in the Planning Area. Any emissions associated with these sources would be negligible and would not be significantly different than existing landscaping and roadway work in the Planning Area; therefore, they are not included in this analysis.

3.2.5 Issue 1: Greenhouse Gas Emissions

3.2.5.1 Impacts

GHG Emissions

Construction Emissions

The Project would provide a long-term blueprint that guides transportation -decision making, plans for diverse modes and mobility options, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The Project would revise the City's existing Circulation Element policies to account for changes made to State law with the recent development of several mode-specific, strategic, community, and neighborhood plans to create one, cohesive mobility framework.

As the Project is a planning level document, no specific construction activities are proposed at this time. Construction activities that could occur to implement the mobility network proposed within the MEU may include the following:

- Roadway improvements, such as paving and restriping.
- Facilities to support public transit, such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks.
- Facilities to support bicycle and micromobility, such as multiuse paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations.
- Facilities to support pedestrian travel, such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping.
- Other mobility-related improvement projects.

GHG emissions would be generated by construction activity associated with proposed enhancements. No specific enhancements have been proposed in this planning analysis, and an annualized quantification of construction emissions would be entirely speculative. In addition, construction-related GHG emissions would be a negligible percentage of total regional emissions when considering the emissions generated by mobile sources. For example, based on the GHG emissions inventory provided in **Table 3.2-3**, off-road equipment emissions were approximately 2% of the total emissions inventory. These emissions included construction emissions from all development activity (e.g., electricity, natural gas, and solid waste decomposition), not just transportation improvements. GHG

emissions strictly from transportation projects would represent less than 2% of total emissions. Therefore, the Project would result in a less than significant impact related to construction GHG emissions.

Mobile Emissions

Mobile source emissions associated with the baseline year 2016 condition and the future year 2050 condition without and with implementation of the Project were calculated using EMFAC2021. **Table 3.2-5** summarizes the results and Appendix C provides the EMFAC2021 calculations.

Table 3.2-5 Mobile Source GHG Emissions					
Modeled Scenario	VMT	Metric Tons per Year			
		CO₂	CH₄	N₂O	CO₂E
Baseline Year 2016	1,441,692	229,831.13	8.01	11.28	233,043.39
Future Year 2050 without Project	1,730,272	176,144.56	1.40	6.81	177,988.24
Future Year 2050 with Project	1,727,015	175,813.00	1.40	6.80	177,653.20
Future Year 2050 with Project Percentage Change over Baseline Year 2016	+19.8%	-23.5%	-82.6%	-39.7%	-23.8%
Future Year 2050 with Project Percentage Change over Future Year 2050 without Project	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
CO ₂ = carbon dioxide, CH ₄ = methane, N ₂ O = nitrous oxide, CO ₂ E = carbon dioxide equivalent Source: Appendix C					

As shown in **Table 3.2-5** both future year 2050 conditions would decrease emissions compared to the baseline year 2016 condition. Although it is estimated that regional growth would result in increased regional VMT over the baseline condition, the implementation of the more advanced engine standards known as the Low-Emission Vehicle Greenhouse Gas Program as well as the Low Carbon Fuel Standard would substantially reduce tailpipe GHG emissions between now and 2035. It is anticipated that mobility enhancements associated with the Project together with anticipated emission controls would reduce GHG emissions by 23.8% when compared to baseline conditions.

One main goal of the Project is to reduce automobile VMT and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services. The MEU contains goals and policies to reduce congestion, thereby reducing GHG emissions. The complete level of VMT reductions associated with implementation of the MEU are not possible to quantify at this level of analysis (such as implementation of micro transit and bike facilities); therefore, the VMT and mobile source emissions modeling only includes network changes that can be accounted for in the regional traffic model. Thus, there are likely additional VMT and associated mobile source emissions reductions that would occur under implementation of the MEU policy framework that would not occur under the no-Project condition.

The Project would not introduce new land uses and therefore would not result in an increase in trip generation in the Planning Area. As shown in **Table 3.2-5**, when compared to buildout of the no-Project condition, the mobility enhancements associated with the Project would result in a slight decrease in VMT and GHG emissions. As discussed in Section 3.2.3, one factor in determining the significance of the Project's GHG impacts should be the extent to which the Project may increase or reduce GHG emissions

as compared to the existing environmental setting. Regional GHG emissions would decrease compared to both baseline year 2016 conditions and a year 2050 no-Project condition. Therefore, the Project would result in a less-than-significant impact related to generating GHG emissions.

GHG Regulatory Programs

As discussed in Section 3.2.2.3, the programs most applicable to the Project include the CAP, the ATP, and the MAP. Consistency with the CAP is discussed in detail in Section 3.2.6. The MEU includes the multimodal networks identified in the ATP. Policies in the MEU include maintaining and implementing the pedestrian network and bicycle/micromobility network identified in the ATP. The Project would therefore support implementation of the ATP through the funding and priorities recommended in the MAP.

3.2.5.2 Significance of Impacts

The Project would result in a less-than-significant impact related to construction GHG emissions. Regional GHG emissions would decrease compared to both baseline year 2016 conditions and a year 2050 no-Project condition. Therefore, the Project would result in a less-than-significant impact related to generating GHG emissions.

3.2.5.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.2.6 Issue 2: Consistency with GHG-Reduction Plans

3.2.6.1 Impacts

State GHG-Reduction Plans

EO S-3-05 and EO B30-15 established GHG -emission reduction targets for the state, and AB 32 launched the CARB Climate Change Scoping Plan that outlined the reduction measures needed to reach the 2020 target, which the state has achieved. As required by SB 32, CARB's 2017 Climate Change Scoping Plan outlines reduction measures needed to achieve the interim 2030 target. AB 1279, the California Climate Crisis Act, codified the carbon neutrality target as 85% below 1990 levels by 2045. The 2022 Scoping Plan was adopted in December 2022. The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85% below 1990 levels no later than 2045, as directed by AB 1279.

Further, the Project would be consistent with the 2022 Scoping Plan. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the state's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities. As shown in **Table 3.2-6**, the Project would be consistent with the strategies related to reducing VMT by providing alternatives to automobile travel and would be consistent with strategies related to electric vehicles by implementing the Electric Vehicle Charging Station Master Plan.

Table 3.2-6 Project Consistency with 2022 Scoping Plan Key Prioritization Strategies

Priority Area	Key Project Attribute	Project Consistency
Transportation Electrification	Provides electric vehicle charging infrastructure that, at a minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of Project approval.	Consistent. In March 2023, the City adopted an Electric Vehicle Charging Station Master Plan in support of this goal. Policy 6.5 would “Incorporate electric and alternative-energy vehicle charging stations/fueling facilities in public and private development projects in accordance with state and local building codes and the Electric Vehicle Charging Station Master Plan.” Policy 6.6 would “In accordance with the Electric Vehicle Charging Station Master Plan and to support the state's goal to phase out internal combustion vehicles and transition to electric vehicles, encourage, incentivize and partner with employers, commercial property owners, and multi-family property owners to provide convenient and reliable electric vehicle charging stations for employees, residents, visitors, and the general public.” These policies would support the installation of electric vehicles throughout the City.
VMT Reduction	Is located on infill sites that are surrounded by existing urban uses and reuses or redevelopments previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer).	Not Applicable. The Project does not propose any land use development.
	Does not result in the loss or conversion of natural and working lands.	Consistent. The Project would not convert natural or working lands.
	Consists of transit-supportive densities (minimum of 20 residential dwelling units per acre)—or is in proximity to existing transit stops (within a half mile)—or satisfies more detailed and stringent criteria specified in the region’s SCS	Consistent. The Project does not propose any land use development or densities. However, the Project would be consistent with San Diego Forward, the region’s SCS, as detailed in Table 3.2-7 .
	Reduces parking requirements by: Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet)—or providing residential parking supply at a ratio of less than one parking space per dwelling unit—or for multifamily residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.	Consistent. The Project does not propose any land use development with parking requirements. However, the goal of this measure is to reduce VMT. Policy 2.5 of the MEU encourages strategies to reduce the need for parking, such as dynamic pricing and transportation demand management (TDM). Goal 3 would “Reduce automobile vehicle-miles traveled and related impacts to air quality and congestion by providing time-competitive alternatives to automobile

Table 3.2-6 Project Consistency with 2022 Scoping Plan Key Prioritization Strategies

Priority Area	Key Project Attribute	Project Consistency
		travel, including public transit, cycling, micromobility, walking, and on-demand mobility services.” Policy 3.2 includes TDM measures such as parking cash-out programs.
	At least 20% of units included are affordable to lower-income residents.	Not Applicable. The Project does not propose any land use development.
	Results in no net loss of existing affordable units.	Not Applicable. The Project does not propose any land use development. The Project would not result in a loss in existing affordable units.
Building Decarbonization	Uses all-electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.	Not Applicable. The Project does not propose any land use development.

Regional GHG-Reduction Plans

San Diego Forward is the regional RTP/SCS. It establishes an implementation plan for how the region will grow over the next 30 years and demonstrates how the region will meet its GHG -reduction targets through integrated land use, housing, and transportation planning. **Table 3.2-7** illustrates the Project’s consistency with all applicable goals and policies of San Diego Forward (SANDAG 2021).

Table 3.2-7 San Diego Forward: The 2021 Regional Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
Complete Corridors	Providing a regional transportation system using technology, infrastructure, improvements, pricing and connectivity to support all forms of movement.	Consistent. The Project would directly implement this policy. The Project would provide a long-term blueprint that guides transportation decision-making, plans for diverse modes and mobility options, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The Project would revise the City’s existing Circulation Element policies to account for changes made to State law with the recent development of several mode-specific, strategic, community, and neighborhood plans to create one, cohesive mobility framework.

Table 3.2-7 San Diego Forward: The 2021 Regional Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
Transit Leap	Offering people a network of high-capacity, high-speed, and high-frequency transit services that will incorporate new modes of transit while also improving existing services.	Consistent. The Project would continue coordination efforts with public transit providers to increase the accessibility of key destinations via public transit and improve its availability to underserved populations—consistent with the Climate Action Plan and other relevant State, regional, and local climate plans.
Mobility Hubs	Centers of activity where a high concentration of people, destinations, and travel choices converge. They will offer on-demand travel options and safe streets to enhance connections to high-quality transit while also making it easier for people to take short trips without needing a car.	Consistent. The MEU policies would directly implement these objects. The Project would develop and maintain a mobility system that connects people to where they want to go with high-quality, multimodal connections between residential areas, schools, transit facilities, employment centers, parks, coastal resources, and commercial hubs.
Flexible Fleets	Offer people a variety of on-demand, shared vehicles, including microtransit, bikeshare, scooters, and other modes of transportation that will connect them to transit and make travel easy within Mobility Hubs.	Consistent. The Project would directly implement these strategies by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services.
Next Operating System (Next OS)	This will be the “brain” of the transportation system—an integrated digital platform that ties the transportation system together. Next OS will be the digital network that analyzes data in real time from the region’s physical networks, making them all work better—more integrated, more efficient, and most of all, more responsive to people’s immediate needs.	Consistent. The Project would not impair SANDAG’s ability to provide Next OS improvements to the transportation system. The Project would facilitate the implementation of new mobility-related transportation technologies and options as they develop.
Active Transportation	Providing critical connections along Complete Corridors and other streets, providing people with safe and convenient ways to connect to transit and other destinations within and between Mobility Hubs.	Consistent. The Project would directly implement these strategies by developing and maintaining a mobility system that connects people to where they want to go with high-quality, multimodal connections between residential areas, schools, transit facilities, employment centers, parks, coastal resources, and commercial hubs. The Project would prioritize safety for all users of the mobility system through a combination of design, enforcement, and education.
Goods Movement	Supports the local, interregional, and international movement of goods.	Not applicable. The Project would not impair SANDAG’s ability to support goods movement.

Table 3.2-7 San Diego Forward: The 2021 Regional Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
Sustainable Growth and Development	A regional pattern of growth and development that reflects smart growth, transit-oriented development, preserving natural resources and agricultural lands, and building communities that are resilient to the consequences of climate change and other environmental changes.	Not applicable. The Project would not result in any land use changes or increase in regional growth and development. The Project would not impair SANDAG's ability to protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat.
Habitat Conservation	To Protect, Connect, and Respect species and their natural habitats to prevent their extinction in San Diego County.	Not applicable. The Project would not impair SANDAG's ability to protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat.
Source: SANDAG 2021.		

As shown in **Table 3.2-7**, the Project is consistent with all applicable 2021 Regional Plan policy objectives and strategies. Impacts would be less than significant.

Local GHG-Reduction Plans

As discussed in Section 3.2.2.3, the City's CAP contains GHG -emissions inventory, projections, goals, reduction measures, and actions to reduce Citywide GHG emissions and achieve the City's 2020 and 2035 reduction targets. To achieve these goals, the CAP establishes GHG-reduction strategies and goals, which are summarized in **Table 3.2-4**. Of importance to the Project is Strategy 4: Clean and Efficient Transportation. Goals and measures related to this strategy include reducing VMT by implementing the ATP, reducing fuel use by improving traffic flow, and requiring electric vehicle charging stations. **Table 3.2-8** summarizes the Project's consistency with Strategy 4 of the City's CAP.

Table 3.2-8 CAP Strategy 4 Consistency Analysis

Goals	Measures	Consistency Analysis
Goal 4.1: Reduce Vehicle Miles Traveled	CET-1: Complete and Implement the Citywide Active Transportation Plan	<p>The CAP contains the following supporting measures related to Goal 4.1 (City of Encinitas 2020):</p> <ul style="list-style-type: none"> • Develop and implement a complete streets policy. • Develop a program to support car sharing and bike sharing for the community. • Complete Safe Routes to Schools projects to decrease need to drive students to school. • Coordinate with regional transit authorities and local school districts to improve student busing and public transit options. • Support SANDAG iCommute Program for guaranteed ride home for the community. • Develop and implement a City Bike Rack Program. • Develop and implement a program to incentivize City employees commuting to work by bike or other modes of alternative transport as a model for other local employers.
	CET-2: Implement a Local Shuttle System	

Table 3.2-8 CAP Strategy 4 Consistency Analysis

Goals	Measures	Consistency Analysis
		<ul style="list-style-type: none"> • Adopt the National Association of City Transportation Officials Urban Bikeway Design Guide and utilize as a policy in the Capital Improvement Program (CIP) roadway projects. • Update the City's Housing Element and implement and enforce the City's existing specific plans (Downtown Encinitas Specific Plan and the North 101 Corridor Specific Plan) to reduce VMT and encourage dense, infill development. • Develop building regulations that support bike parking and the installation of bike racks, including covered bike parking/storage, and allow bike parking spaces to contribute to a development's overall parking requirement. • Install traffic infrastructure enhancements that support biking and walking. These could include bike sensors and associated street markings to indicate the location of the sensor, pedestrian detectors at intersection, cross walks, and traffic bollards. • Implement a monitoring program for assessing biking, walking and transit ridership in the City to determine the baseline level of travel and facilitate the development of appropriate mode shift targets for the City. • Complete the Modal Alternatives Plan to support this design and installation of the bike and pedestrian projects identified in the Active Transportation Plan. <p>Consistent. The MEU would directly implement these CAP goals and measures. These goals include the following:</p> <ul style="list-style-type: none"> • Goal 1: Mobility System Purpose and Guiding Principles. Develop and maintain a mobility system that accommodates the City's diverse needs and land uses, including planned growth. • Goal 2: Multimodal Options. Provide multimodal mobility options that are safe, accessible, and comfortable for all types of users including residents, visitors, and goods movement. • Goal 3: Vehicle Miles Traveled and Mode Share. Reduce automobile vehicle-miles traveled and related impacts to air quality and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services. • Goal 4: System Connectivity. Improve system connectivity by adopting multimodal standards, eliminating gaps in mobility networks, and increasing the ease of multimodal and multijurisdictional travel. • Goal 5: System Safety. Maximize the safety of the mobility system through design best practices, regular maintenance, community education, and consistent enforcement.

Table 3.2-8 CAP Strategy 4 Consistency Analysis		
Goals	Measures	Consistency Analysis
		<ul style="list-style-type: none"> Goal 6: Environmental and Community Impacts. Balance mobility benefits with impacts to the environment and community. <p>Each of these goals includes supporting policies that directly implement these measures related to reducing VMT. The Project would not conflict with this CAP goal.</p>
Goal 4.2: Reduce On-road Fuel Use	CET-3: Improve Traffic Flow	<p>The CAP contains the following supporting measures related to Goal 4.2 (City of Encinitas 2020):</p> <ul style="list-style-type: none"> Identify rebate and incentive programs and financing opportunities for installing roundabouts. Update the City's Circulation Element to support improved traffic flow. <p>Consistent. The City has installed a roundabout at the intersections of N Coast Highway 101 and El Portal Street, Leucadia Boulevard and Hermes Avenue, and Leucadia Boulevard and Hymettus Avenue, and is seeking funding to construct a roundabout at the intersection of Leucadia Boulevard and Hygeia Avenue. The MEU would directly implement these goals, measures, and supporting measures by improving traffic flow.</p>
Goal 4.3: Increase Use of Alternative Fuels.	CET-4: Require Residential Electric Vehicle Charging Stations	<p>The CAP contains the following supporting measures related to Goal 4.2 (City of Encinitas 2020):</p> <ul style="list-style-type: none"> Expand and implement a Green Building Incentive Program to increase electric vehicle charging at home and businesses. Complete and implement an Electric Vehicle Charging Station Master Plan to increase the use of zero emission vehicles by the community. Work with SDG&E to explore projects through their Power Your Drive Program. Develop and implement electric-vehicle charging plan for municipal facilities. Pursue partnerships with school districts and NCTD to explore the use of electric busing or public transit busing for schools. Implement a wayfinding program with signage and information systems to facilitate walking, biking, and efficient driving and parking. Implement educational activities to raise awareness about electric vehicles among residents and businesses. Develop and implement a program to incentivize City employees commuting to work by electric vehicle or other modes of alternative transport as a model for other local employees. Install electric-vehicle charging stations at municipal facilities.
	CET-5: Require Commercial Electric Vehicle Charging Stations	
	MCET-1: Transition to Zero Emission Vehicle Municipal Fleet	
	MCET-2: Adopt a Municipal Employee Telecommute Policy	

Table 3.2-8 CAP Strategy 4 Consistency Analysis

Goals	Measures	Consistency Analysis
		<ul style="list-style-type: none"> • Develop a City vehicle fleet conversion plan and identify funding to support conversion of fleet vehicles. • Expand the City employee alternative commute program to include incentives to commute by bicycle, walking, carpooling, or electric vehicle, as approved by City Council. <p>Consistent. In March 2023, the City adopted an Electric Vehicle Charging Station Master Plan in support of this goal. Policy 6.5 would “Incorporate electric and alternative-energy vehicle charging stations/fueling facilities in public and private development projects in accordance with state and local building codes and the Electric Vehicle Charging Station Master Plan.” Policy 6.6 would “In accordance with the Electric Vehicle Charging Station Master Plan and to support the state's goal to phase out internal combustion vehicles and transition to electric vehicles, encourage, incentivize and partner with employers, commercial property owners, and multi-family property owners to provide convenient and reliable electric vehicle charging stations for employees, residents, visitors, and the general public.” These policies would support the installation of residential and commercial electric vehicle charging stations as well as the transition of City fleets to electric vehicles.</p>

In summary, the MEU supports these CAP strategies and goals to reduce VMT and improve traffic flow in the Planning Area. The Project would be consistent with the CAP and would directly implement its transportation-related GHG-reduction goals. Impacts would be less than significant.

3.2.6.2 Significance of Impacts

The Project would be consistent with the 2017 and 2022 Scoping Plans and statewide GHG-reduction goals consistent with SB 32 and AB 1279. The Project would be consistent with all applicable San Diego Forward policy objectives and strategies. Additionally, the Project would be consistent with the CAP and would directly implement its transportation related GHG-reduction goals. The Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs. Impacts would be less than significant.

3.2.6.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.2.7 Conclusion

Regional GHG emissions would decrease compared to both baseline year 2016 conditions and a year 2050 no-Project condition. Therefore, the Project would result in a less than significant impact to generating GHG emissions. Additionally, the Project would be consistent with all State, regional, and local GHG-reduction plans including the 2017 and 2022 Scoping Plans, San Diego Forward, and the City's CAP. The Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs. Impacts would be less than significant.

3.3 Noise and Vibration

This section analyzes the noise and vibration impacts that could result from implementing the City of Encinitas Mobility Element Update (MEU; Project). This analysis is based on the existing and buildout traffic volumes on Planning Area roadways (see Appendix E). Noise measurement and modeling data are provided in Appendix D.

3.3.1 Existing Conditions

The Planning Area is subject to typical urban noises such as noise generated by traffic, commercial, retail, and day-to-day outdoor activities. The Planning Area has several transportation-related noise sources including railroad operations, major arterials, and Interstate 5 (I-5). Noise sources that are not directly related to transportation include noise from commercial and industrial uses, construction, and property maintenance activities.

3.3.1.1 Fundamentals of Noise and Vibration

Fundamentals of Noise

Sound levels are described in units called decibels (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale, which is used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.

Additionally, sound levels are described as either a “sound power level” or a “sound pressure level,” which are two distinct characteristics of sound. Both share the same unit of measure, the dB. However, sound power (L_{pw}) is the energy converted into sound by the source. The L_{pw} is used to estimate how far a noise will travel and to predict the sound levels at various distances from the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers (e.g., an eardrum or microphone) and is defined as the sound pressure level. Noise measurement instruments only measure sound pressure, and noise level limits used in standards are generally sound pressure levels.

The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon the A-scale was devised. The A-scale approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate with the A-scale sound levels for those sounds. Therefore, the “A-weighted” noise scale is used for measurements and standards involving the human perception of noise. Noise levels using A-weighted measurements are designated with the notation dB(A).

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. Additionally, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this study are the 1-hour equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL). The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies a 5 dB(A) penalty to noise occurring during evening hours between 7:00 p.m. and 10:00 p.m., and a 10 dB(A) penalty is added to noise occurring during nighttime hours, between 10:00 p.m. and 7:00 a.m.

The dB(A) increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

Geometric spreading occurs when sound from a small, localized source (approximating a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level decreases or drops off at a rate of 6 dB(A) for each doubling of the distance.

Traffic noise is not a single, stationary point source of sound. The movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point when viewed over a time interval. The drop-off rate for a line source is 3 dB(A) for each doubling of distance.

The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site (e.g., parking lots or smooth bodies of water) receives no additional ground attenuation, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. A soft site (e.g., soft dirt, grass, or scattered bushes and trees) receives an additional ground attenuation value of 1.5 dB(A) per doubling of distance. Thus, a point source over a soft site would attenuate at 7.5 dB(A) per doubling of distance.

Human perception of noise has no simple correlation with acoustical energy. A change in noise levels is generally perceived as follows: 3 dB(A) barely perceptible, 5 dB(A) readily perceptible, and 10 dB(A) perceived as a doubling or halving of noise (Caltrans 2013).

Fundamentals of Vibration

Vibration consists of energy waves transmitted through solid material (FTA 2018). Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it oscillates and is measured in hertz (Hz). The normal frequency range of most groundborne vibrations that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz (FTA 2018).

Groundborne vibration is measured by its peak particle velocity (PPV), which is normally described in inches per second (in/sec). PPV is appropriate for determining potential structure damage but does not evaluate human response to vibration. The ground motion caused by vibration may also be described in decibel notation as vibration decibels (VdB), which compresses the range of numbers required to describe vibration relative to human response.

Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. How vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

Groundborne vibration can be a concern for nearby residents along a transit system route or maintenance facility, causing buildings to shake and rumbling sounds. Groundborne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains; buses on rough roads; and construction activities such as blasting, pile-driving, and operating heavy earth-moving equipment.

3.3.1.2 Environmental Setting

Existing Noise Levels

As part of this assessment, ambient noise levels were measured in the Planning Area to provide a characterization of the variability of noise and to assist in determining constraints and opportunities for future development. Daytime noise levels were measured in 15-minute intervals at eight locations throughout the Planning Area. Noise measurements were taken with a Larson-Davis LxT Type 1 Integrating Sound Level Meter, serial number 3829. The following parameters were used:

Filter:	A-weighted
Response:	Slow
Time History Period:	5 seconds
Height of Instrument:	5 feet above ground level

Measurement locations are shown on **Figure 3.3-1**. These locations were selected because they are located near the main mobility element roadways within the Planning Area and where potential roadway improvements under the MEU could occur. A summary of the measurements is provided in **Table 3.3-1**, and traffic counts taken during measurements are summarized in **Table 3.3-2**. Based on the measurement data, daytime noise levels in the Planning Area are typical of an urban environment. Each measurement location and noise source observed during the measurements is discussed in this section.

Table 3.3-1 Noise Measurements				
Measurement	Location	Time	Main Noise Source	dB(A) Leq
1	50 feet from El Camino Real	9:20 a.m. – 9:35 a.m.	Vehicle traffic on El Camino Real	58.0
2	50 feet from Manchester Avenue	2:13 p.m. – 2:38 p.m.	Vehicle traffic on Manchester Avenue, roller	67.4
3	100 feet from South Coast Highway	1:00 p.m. – 1:15 p.m.	Vehicle traffic on South Coast Highway	59.3
4	50 feet from Encinitas Boulevard and Vulcan Avenue	12:18 p.m. – 12:33 p.m.	Vehicle traffic on Encinitas Boulevard	66.3
5	50 feet from Leucadia Boulevard	11:05 a.m. – 11:20 a.m.	Vehicle traffic on Leucadia Boulevard	71.4
6	50 feet from La Costa Avenue	10:12 a.m. – 10:27 a.m.	Vehicle traffic on La Costa Avenue	67.9
7	50 feet from Rancho Santa Fe Road	8:39 a.m. – 8:54 a.m.	Vehicle traffic on Rancho Santa Fe Road	61.5
8	75 feet from I-5	1:34 p.m. – 1:49 p.m.	Vehicle traffic on I-5	82.0
Interstate-5 = I-5; Leq = 1-hour equivalent noise level.				



Table 3.3-2 15 Minute Traffic Counts

Measurement	Roadway	Direction	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles
1	El Camino Real	SB	245	0	5	0	1
		NB	307	2	1	1	0
2	Manchester Avenue	EB	256	1	1	0	0
		WB	201	1	0	0	0
3	South Coast Highway	SB	106	0	1	1	6
		NB	115	0	0	0	0
4	Encinitas Boulevard	EB	180	4	3	3	1
		WB	213	0	4	1	2
5	Leucadia Boulevard	EB	298	5	0	0	0
		WB	260	1	0	0	0
6	La Costa Avenue	WB	273	2	6	0	2
		EB	252	3	3	1	0
7	Rancho Santa Fe Road	SB	178	2	0	0	1
		NB	94	0	0	0	1

EB = eastbound; WB = westbound; NB = northbound; SB = southbound.
 Note: Traffic counts were not conducted during Measurement 8 because freeway traffic volumes could not be manually counted.

Measurement 1 was taken 50 feet from El Camino Real adjacent to the Encinitas Village Shopping Center north of Encinitas Boulevard. The main source of noise was vehicle traffic on El Camino Real. Other sources of noise included parking lot activity and car horns. Traffic volumes on El Camino Real were counted during the 15-minute measurement period. The average measured noise level was 58.0 dB(A) L_{eq} .

Measurement 2 was taken 50 feet from Manchester Avenue near the Mira Costa College San Elijo campus. The main source of noise was vehicle traffic on Manchester Avenue. Other sources of noise included a roller working on the roadway. Traffic volumes on Manchester Avenue were counted during the 15-minute measurement period. The average measured noise level was 67.4 dB(A) L_{eq} .

Measurement 3 was located at the western end of Montgomery Avenue between San Elijo Avenue and the railroad tracks and approximately 100 feet east of South Coast Highway. The main source of noise was vehicle traffic on South Coast Highway. Other sources of noise included aircraft flyovers and vehicle traffic on San Elijo Avenue. No trains were observed during the measurement period. Traffic volumes on South Coast Highway were counted during the 15-minute measurement period. The average measured noise level was 59.3 dB(A) L_{eq} .

Measurement 4 was located at Cottonwood Creek Park, approximately 50 feet from both Encinitas Boulevard and Vulcan Avenue. The main source of noise was vehicle traffic on Encinitas Boulevard. Other sources of noise included vehicle traffic on Vulcan Avenue and a train on the railroad tracks approximately 220 feet to the west. Traffic volumes on Encinitas Boulevard were counted during the 15-minute measurement period. The average measured noise level was 66.3 dB(A) L_{eq} .

Measurement 5 was located 50 feet north of Leucadia Boulevard between Passiflora Avenue and Sidonia Street. The main source of noise was vehicle traffic on Leucadia Boulevard. Traffic volumes on Leucadia Boulevard were counted during the 15-minute measurement period. The average measured noise level was 71.4 dB(A) L_{eq} .

Measurement 6 was located 50 feet from La Costa Avenue at the intersection with Saxony Road. The main source of noise was vehicle traffic on La Costa Avenue. Other sources of noise included vehicle traffic on Saxony Road and vegetation clearing to the south on Saxony Road. Traffic volumes on La Costa Avenue were counted during the 15-minute measurement period. The average measured noise level was 67.9 dB(A) L_{eq} .

Measurement 7 was located 50 feet from Rancho Santa Fe Road, north of the intersection with Encinitas Boulevard. The main source of noise was vehicle traffic on Rancho Santa Fe Road. Other sources of noise included gardening equipment. Traffic volumes on Rancho Santa Fe Road were counted during the 15-minute measurement period. The average measured noise level was 61.5 dB(A) L_{eq} .

Measurement 8 was located on the sidewalk adjacent to MacKinnon Avenue overlooking I-5, approximately 75 feet from the nearest I-5 travel lane. The main source of noise was vehicle traffic on I-5. Other sources of noise included vehicle traffic on MacKinnon Avenue. No manual traffic counts on I-5 were conducted because of the large volume of traffic. The average measured noise level was 82.0 dB(A) L_{eq} .

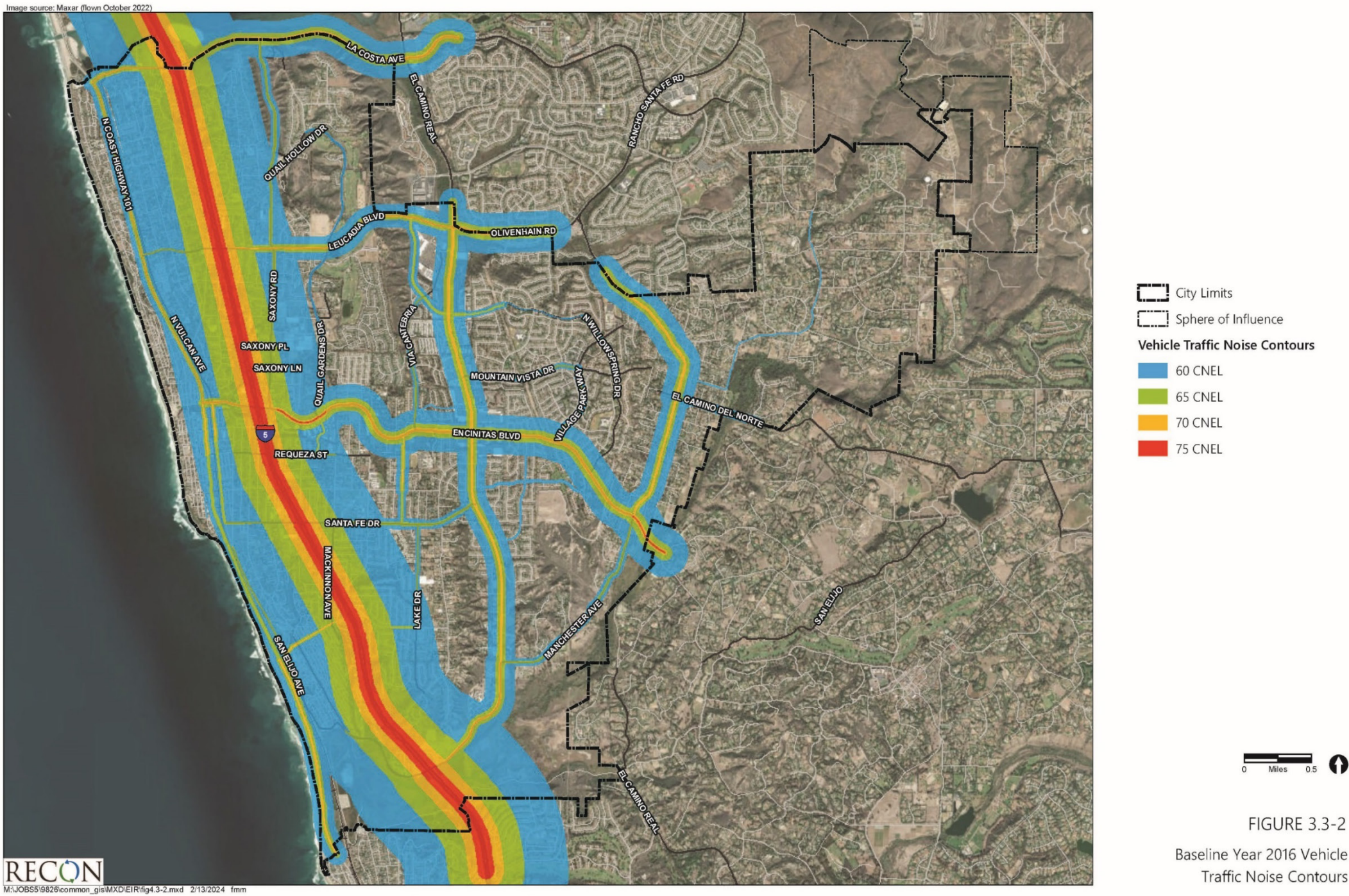
Existing Noise Level Contours

Major roads generating the greatest noise level in the Planning Area include I-5, South Coast Highway 101, El Camino Real, Rancho Santa Fe Road, Encinitas Boulevard, Olivenhain Road, and La Costa Avenue. Additionally, numerous other roads within the Planning Area are also major sources of noise. The noise contour distances represent the predicted noise level for each roadway without the attenuating effects of noise barriers, structures, topography, or dense vegetation. As intervening structures, topography, and dense vegetation would affect noise exposure at a particular location, the noise contours should not be considered site-specific but are rather guides to determine when detailed acoustic analysis should be undertaken.

Figure 3.3-2 shows the existing vehicle traffic noise contours for the Planning Area. As shown, existing noise levels in areas located closest to the roadways exceed 60 CNEL. I-5 is the dominant noise source in the Planning Area. Noise contours from the freeways in many cases overlap with and encompass the noise contours from local roadways.

Sensitive Noise and Vibration Receptors

Some land uses are considered more sensitive to changes in noise and vibration levels than others, depending on the population groups and the activities involved. Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect land use. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise- and vibration-sensitive and may warrant unique measures for intruding noise protection.



3.3.2 Regulatory Framework

3.3.2.1 Federal

Construction Noise

The Federal Transit Administration (FTA) provides financial and technical assistance to local public transit systems including buses, subways, light rail, commuter rail, trolleys, and ferries. The FTA also oversees safety measures. The FTA's Transit Noise and Vibration Impact Assessment manual indicates that 80 dB(A) L_{eq} is a reasonable criterion for assessing construction noise levels at residential uses (FTA 2018). In the absence of local construction noise level limits, the FTA recommended 80 dB(A) L_{eq} criterion is often used to assess the significance of construction noise at residential receivers.

Vibration

The FTA provides criteria for acceptable levels of groundborne vibration for various types of buildings. Structures amplify groundborne vibration; wood-frame buildings, such as typical residential structures, are more affected by ground vibration than heavier buildings. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively, but the standards recommended by the FTA are provided in **Table 3.3-3**.

Table 3.3-3 Construction Vibration Damage Criteria		
Building/Structural Category	PPV (in/sec)	Approximate VdB
I. Reinforced concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90
Source: FTA 2018. PPV = peak particle velocity; in/sec = inch per second; VdB = vibration decibel.		

The FTA also provides guidance for assessing vibration impacts from railroad operations. The criteria for determining the significance of impacts are presented in **Table 3.3-4**.

For Category 1 land uses, the use of equipment (e.g., vibration-sensitive equipment), the screening distance from the right of way is 600 feet. The screening distance is 200 feet for Category 2 land uses, which are residences and buildings where people would normally sleep. The screening distance for Category 3 institutional land uses with primarily daytime uses is 120 feet.

Table 3.3-4 Guidelines for Determining the Significance of Groundborne Vibration and Noise Impacts						
Land Use Category	Groundborne Vibration Impact Levels (VdB re 1 micro-inch per second)			Groundborne Noise Impact Levels (dB re 20 micro Pascals)		
	Frequent Events	Occasional Events	Infrequent Events	Frequent Events	Occasional Events	Infrequent Events
Category 1: Buildings where low ambient vibration is essential for interior operations (research and manufacturing facilities with special vibration constraints)	65 VdB	65 VdB	65 VdB	N/A	N/A	N/A
Category 2: Residences and buildings where people normally sleep (hotels, hospitals, residences, and other sleeping facilities)	72 VdB	75 VdB	80 VdB	35 dB(A)	38 dB(A)	43 dB(A)
Category 3: Institutional land uses with primarily daytime use (schools, churches, libraries, other institutions, and quiet offices)	75 VdB	78 VdB	83 VdB	40 dB(A)	43 dB(A)	48 dB(A)
Source: FTA 2018. VdB = vibration decibel; re = relative; N/A = not applicable.						

3.3.2.2 State

General Plan Guidelines

The State of California, through its General Plan Guidelines, discusses how ambient noise should influence land use and development decisions. It includes a table of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable uses at different noise levels, expressed in CNEL (Governor's Office of Planning and Research 2017). This table provides a tool to gauge the compatibility of land uses relative to existing and future noise levels. It provides land use compatibility guidelines that local jurisdictions can use as a guide for establishing their own General Plan noise compatibility levels that reflect the noise-control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. The compatibility guidelines identify normally acceptable, conditionally acceptable, and clearly unacceptable noise levels for various land uses. A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use, and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

California Code of Regulations

For residential uses, interior noise levels for habitable rooms are regulated also by Title 24 of the California Code of Regulations, California Noise Insulation Standards. Title 24, Chapter 12, Section 1206.4 of the 2022 California Building Code requires that interior noise levels attributable to exterior sources not exceed 45 CNEL in any habitable room within a residential structure. A habitable room is a room used for living, sleeping, eating, or cooking. Bathrooms, closets, hallways, utility spaces, and similar areas are not considered habitable rooms for this regulation.

For non-residential structures, Title 24, Chapter 12, Section 1207.5 refers to 2022 California Green Building Standards, Chapter 5 – Nonresidential Mandatory Measures, Division 5.5 – Environmental Quality, Section 5.507 – Environmental Comfort, Subsection 5.507.4 – Acoustical Control. Pursuant to these standards, all non-residential building construction shall employ building assemblies and components that achieve a composite sound transmission class rating of at least 50 or shall otherwise demonstrate that exterior noise shall not result in an interior noise environment where noise levels exceed 50 dB(A) L_{eq} in occupied areas during any hour of operation.

3.3.2.3 Local

General Plan and Local Coastal Program

The City's Noise Element of the General Plan establishes noise and land use compatibility guidelines for various land uses. The purpose is to provide an acceptable community noise environment and to minimize noise-related complaints from residents. The land use compatibility guidelines are summarized on **Figure 3.3-3** (City of Encinitas 1989).

The City has also adopted a Local Coastal Program that is comprised of a Land Use Plan and an Implementation Plan (City of Encinitas 1995). The Land Use Plan includes issues and policies related to the requirements of the Coastal Act. The Implementation Plan consists of portions of the City's Municipal Code and the City's various Specific Plan areas including the Cardiff-by-the-Sea Specific Plan, Encinitas Downtown Specific Plan, Encinitas North 101 Corridor Specific Plan, and Encinitas Ranch Specific Plan. The specific plans refer to the General Plan noise compatibility guidelines for residential uses located near railroad tracks and other heavily traveled roadways.

Source: Cotton/Beland/Associates

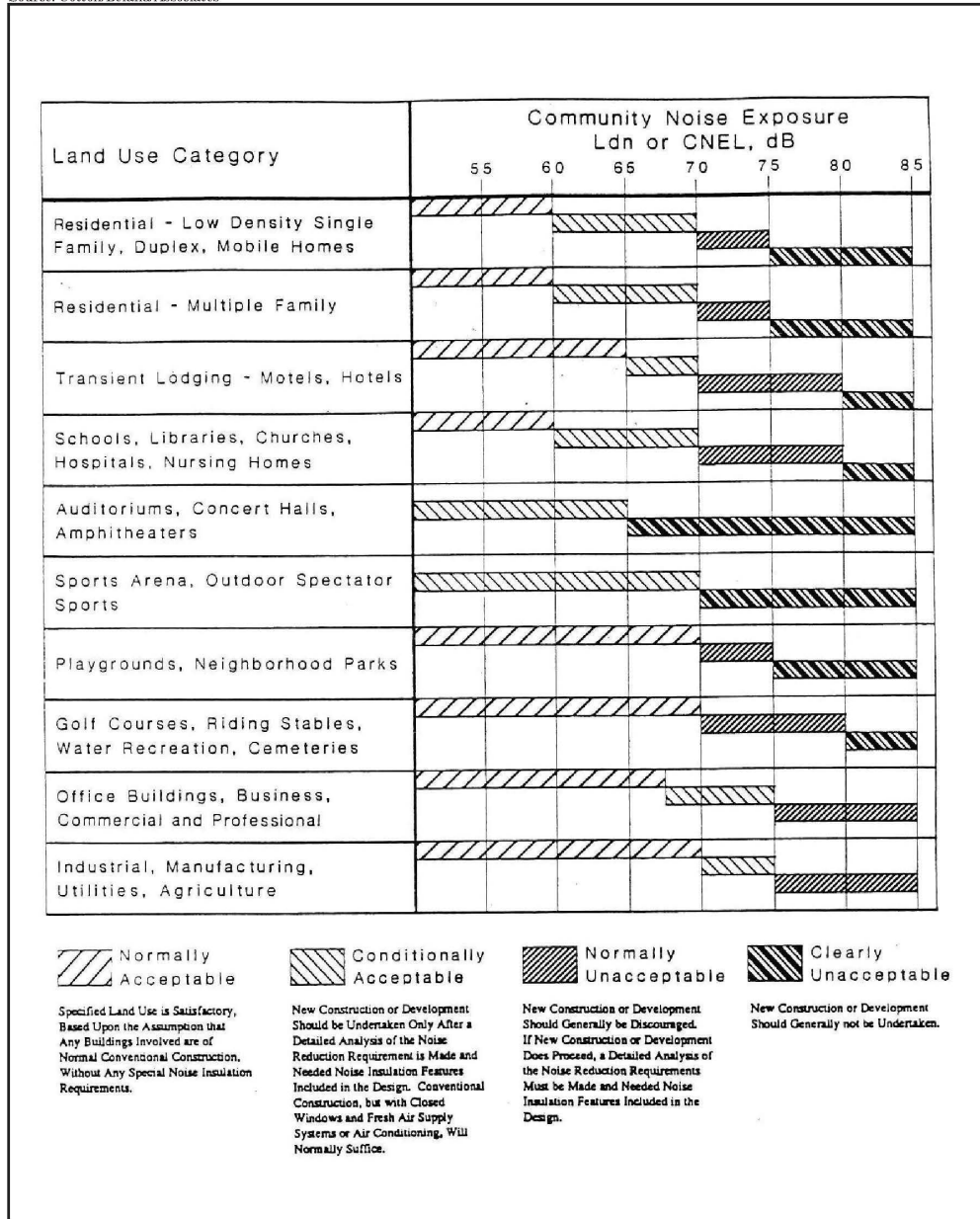


FIGURE 3.3-3

City of Encinitas Noise and
Land Use Compatibility Guidelines

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City of Encinitas Municipal Code

Construction Noise

The City regulates construction noise through Section 9.32.410 of the City's Municipal Code. It states,

Except for emergency work, it shall be unlawful for any person, including the City, to operate construction equipment at any construction site, except as outlined in subsections A and B of this section:

- A. It shall be unlawful for any person, including the City, to operate construction equipment at any construction site on Sundays, and days appointed by the President, Governor or the City Council for a public fast, thanksgiving or holiday. Notwithstanding the above, a person may operate construction equipment on the above-specified days between the hours of 10:00 a.m. and 5:00 p.m. in compliance with the requirements of subsection B of this section at his or her residence or for the purpose of constructing a residence for him or herself, provided such operation of construction equipment is not carried on for profit or livelihood. In addition, it shall be unlawful for any person to operate construction equipment at any construction site on Mondays through Saturdays except between the hours of 7:00 a.m. and 7:00 p.m.
- B. No such equipment, or combination of equipment regardless of age or date of acquisition, shall be operated so as to cause noise at a level in excess of 75 decibels for more than eight hours during any 24-hour period when measured at or within the property lines of any property which is developed and used either in part or in whole for residential purposes.

Operational Noise and Vibration

The City regulates operational noise and vibration through Section 30.40.010 of the City's Municipal Code. The operational noise level limits are summarized in **Table 3.3-5**.

Table 3.3-5 Operational Noise Level Limits		
Adjacent Zone	1-Hour Average Sound Level (dB[A] L _{eq})	
	7:00 a.m. to 10:00 p.m.	10:00 p.m. to 7:00 a.m.
RR, RR-1, RR-2, R-3, R-5, R-8	50	45
R-11, RS-11, R-15, R-20, R-25, MHP	55	50
OP, LLC, LC, GC, L-VSC, VSC	60	55
L-I, BP	60	55
Source: Section 30.40.010 of the Municipal Code.		

The City's Municipal Code also states that it shall be unlawful for any person on any property within the City to create any noise, or to allow the creation of any noise on property owned, leased, occupied,

or otherwise controlled by such person that causes the noise level when measured on any other property to exceed the following:

- a. The noise standard for a cumulative period of more than 30 minutes in any hour; or
- b. The noise standard plus 5 dB for a cumulative period of more than 15 minutes in any hour; or
- c. The noise standard plus up to 15 dB for a cumulative period of more than 1 minute in any hour; or
- d. The noise standard plus 20 dB for any period.

Section 30.40.010 also provides the vibration limits summarized in **Table 3.3-6**.

Table 3.3-6 Vibration Level Limits		
Adjacent Zone	Vibration (inch per second)	
	Impact	Steady-State
Residential	0.006	0.003
Commercial	0.010	0.005
Light Industrial	0.040	0.020
Public/Semi-Public	0.010	0.005
Source: Section 30.40.010 of the Municipal Code.		

3.3.3 Significance Determination Thresholds

Thresholds used to evaluate noise impacts are based on applicable criteria in the California Environmental Quality Act Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the Project:

1. Generates a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project exceeding standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
2. Generates excessive groundborne vibration or groundborne noise levels; or
3. Exposes people residing or working in the project area to excessive noise levels 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 2 miles of a public airport or public use airport.

3.3.4 Methodology

3.3.4.1 Ambient Traffic Noise

Traffic noise occurs adjacent to every roadway and is directly related to the traffic volume, speed, and mix of vehicles. Existing and future traffic volumes, speeds, and truck percentages for each roadway segment in the Planning Area were obtained from the traffic engineer. The Federal Highway Administration (FHWA) Traffic Noise Model algorithms were used to calculate distances to noise

contours for each roadway. The FHWA model accounts for traffic mix, speed, and volume; roadway gradient; relative distances between sources, barriers, and sensitive receptors; and shielding provided by intervening terrain or structures.

The analysis of the noise environment considered that the topography was flat with no intervening terrain between sensitive land uses and roadways. Because modeled predicted noise levels do not account for obstructions, they are higher than those that would occur. Buildings and other obstructions along the roadways would shield distant receivers from the traffic noise. Baseline year 2016 and buildout year 2050 roadway segment volumes without and with the implementation of the Project were obtained from the modeling data used in support of the transportation analysis prepared for the Project (see Appendix E). This data is provided in Appendix D. I-5 traffic volumes were obtained from the San Diego Association of Governments Transportation Forecast Information Center (SANDAG 2024). Modeled traffic volumes and speeds are summarized in **Table 3.3-7**. Noise contour distances were calculated, and traffic noise levels were calculated from 50 feet of each roadway centerline. The baseline year 2016 noise contours are shown on **Figure 3.3-2** and the future year 2050 contours without the Project and with the Project are shown on **Figure 3.3-4** and **Figure 3.3-5**, respectively. Note that the Project would not generate new trips within the Planning Area. The differences in future year 2050 roadway segment volumes are due to the redistribution of traffic due to changes in roadway classifications.

Table 3.3-7 Modeled Vehicle Traffic Parameters

Roadway	Segment	Year 2016 ADT	Year 2050 ADT without Project	Year 2050 ADT with Project	Speed (mph)
I-5	South of Manchester Avenue	236,100	244,400	244,400	65
I-5	Manchester Avenue to Birmingham Drive	205,900	212,600	212,600	65
I-5	Birmingham Drive to Santa Fe Drive	201,200	209,700	209,700	65
I-5	Santa Fe Drive to Encinitas Boulevard	195,900	206,100	206,100	65
I-5	Encinitas Boulevard to Leucadia Boulevard	197,400	205,500	205,500	65
I-5	Leucadia Boulevard to La Costa Avenue	194,600	203,300	203,300	65
I-5	North of La Costa Avenue	194,200	202,400	202,400	65
Balour Drive	Encinitas Boulevard to Melba Drive	12,484	12,746	12,747	35
Balour Drive	Melba Drive to Santa Fe Drive	7,992	7,498	7,458	35
Birmingham Drive	San Elijo Avenue to Carol View Drive	13,188	12,298	12,243	35
Birmingham Drive	Carol View Drive to Villa Cardiff Drive	14,902	15,197	15,142	35
Birmingham Drive	Villa Cardiff Drive to Lake Drive	8,075	8,257	8,349	35
Bonita Drive	Requeza Street to Melba Road	1,396	1,388	1,395	20
Bonita Drive	Melba Road to Santa Fe Drive	1,469	1,857	1,811	20
Cerro Street	Encinitas Boulevard to Avenida De Las Adelsas	2,172	2,967	2,963	35
Cerro Street	Avenida De Las Adelsas to S El Camino Real	2,272	3,017	2,895	35
Chesterfield Drive	S Coast Highway 101 to Oxford Avenue	5,414	5,106	5,123	20
Chesterfield Drive	Oxford Avenue to Edinburg Avenue	488	489	493	20
Clark Avenue	Leucadia Boulevard to Publa Street	1,922	2,816	2,819	20
Cornish Drive	E D Street to San Elijo Avenue	726	486	465	20
Crest Drive	Santa Fe Drive to Melba Road	648	707	649	20
E D Street	S Coast Highway 101 to Stratford Drive	1,422	1,212	1,223	20

Table 3.3-7 Modeled Vehicle Traffic Parameters

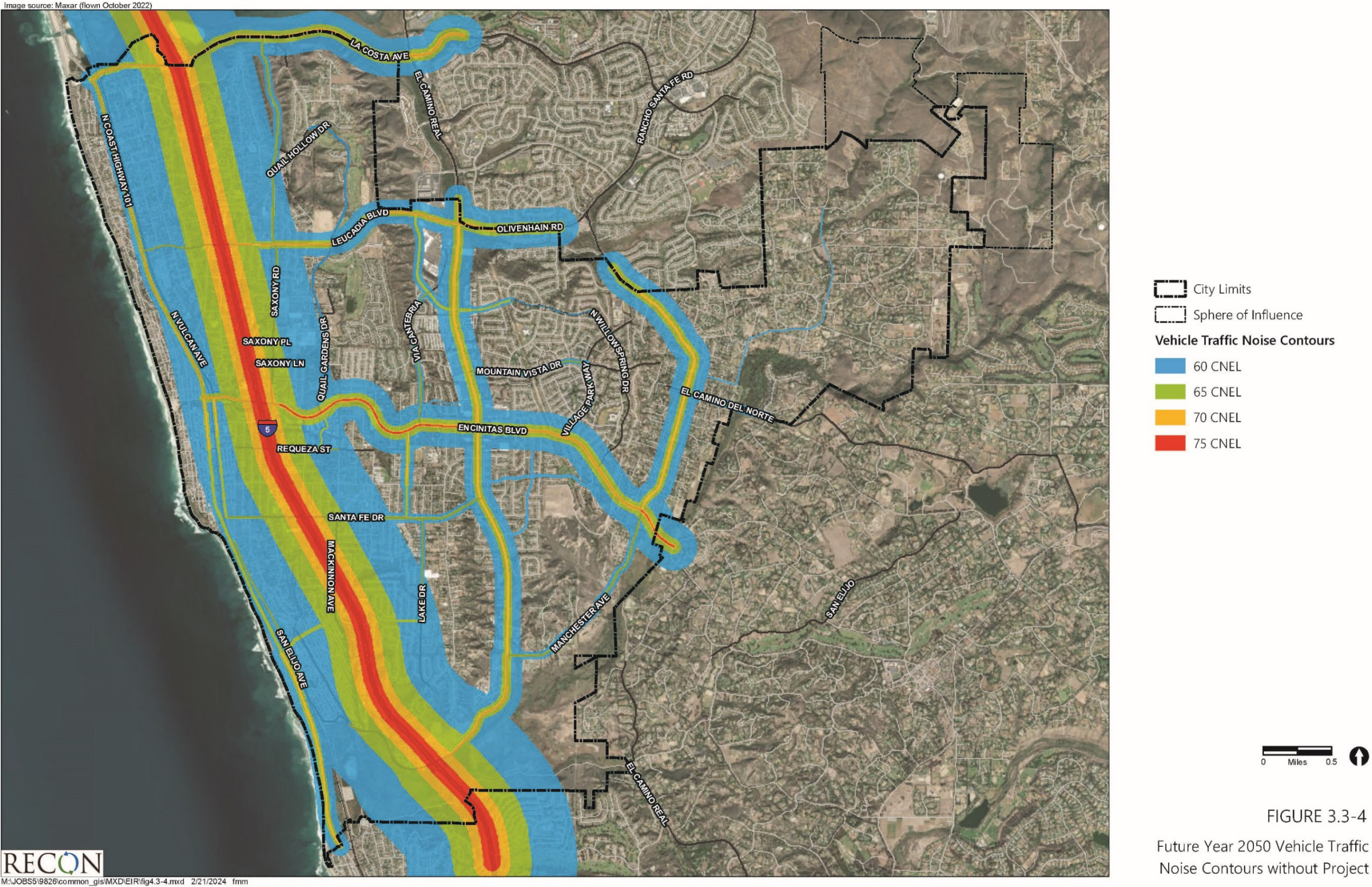
Roadway	Segment	Year 2016 ADT	Year 2050 ADT without Project	Year 2050 ADT with Project	Speed (mph)
E F Street	S Vulcan Avenue to Cornish Drive	1,327	2,379	2,371	35
E Glaucus Street	N Vulcan Avenue to Hygeia Avenue	1,336	1,332	1,314	20
E Glaucus Street	Hygeia Avenue to Hymettus Avenue	1,694	1,705	1,706	20
E Glaucus Street	Hymettus Avenue to Orpheus Avenue	338	334	357	20
Edinburg Avenue	Liverpool Drive to Chesterfield Drive	520	521	526	20
El Camino Del Norte	City Boundary to Rancho Santa Fe Road	8,658	8,435	8,282	35
N El Camino Real	City Boundary to Leucadia Boulevard	27,171	27,150	26,809	35
N El Camino Real	Leucadia Boulevard to Encinitas Boulevard	32,179	31,492	31,261	35
S El Camino Real	Encinitas Boulevard to Crest Drive	29,418	26,550	26,558	35
S El Camino Real	Crest Drive to Manchester Avenue	27,052	25,653	25,597	35
El Portal Street	La Mesa Avenue to La Veta Avenue	799	801	808	20
El Portal Street	La Veta Avenue to N Coast Highway 101	1,236	1,239	1,249	20
Encinitas Boulevard	N Coast Highway 101 to I-5	26,988	26,138	26,123	35
Encinitas Boulevard	I-5 to Calle Magdalena	31,317	32,391	32,681	35
Encinitas Boulevard	Calle Magdalena to Westlake Street	24,308	26,121	26,209	45
Encinitas Boulevard	Westlake Street to N El Camino Real	21,665	22,454	22,576	45
Encinitas Boulevard	N El Camino Real to Rancho Santa Fe Road	21,144	21,192	21,278	45
Garden View Road	City Boundary to El Camino Real	9,031	9,352	9,501	35
Garden View Road	El Camino Real to Garden View Court	8,966	9,844	9,902	35
Garden View Road	Garden View Court to Glan Arbor Drive	6,312	6,577	6,543	35
Glen Arbor Drive	Garden View Road to Willowspring Drive	1,513	1,509	1,506	20
Glen Arbor Drive	Willowspring Drive to Mountain Vista Drive	622	653	639	20
Glen Arbor Drive	Mountain Vista Drive to N Willowspring Drive	465	402	399	20
Grandview Street	Neptune Avenue to N Coast Highway 101	1,258	1,261	1,272	20
Hymettud Avenue	E Glaucus Street to E Glaucus Street	768	713	746	20
La Costa Avenue	N Coast Highway 101/Carlsbad Boulevard to Piraeus Street	18,077	21,354	21,550	35
La Costa Avenue	Piraeus Street to City Boundary	35,416	37,235	37,628	35
Lake Drive	Santa Fe Drive to Birmingham Drive	5,296	5,278	5,141	35
Leucadia Boulevard	N Coast Highway 101 to Orpheus Avenue	6,005	6,024	5,915	35
Leucadia Boulevard	Orpheus Avenue to N El Camino Real	22,800	23,174	23,196	35
Liverpool Drive	Edinburg Avenue to Mackinnon Avenue	368	369	372	20
Lone Jack Road	Rancho Santa Fe Road to Lone Hill Ln	4,380	4,540	4,402	20
Mackinnon Avenue	Santa Fe Drive to Villa Cardiff Drive	8,969	9,100	8,863	35
Mackinnon Avenue	Villa Cardiff Drive to Birmingham Drive	5,303	4,920	4,744	35
Mackinnon Avenue	Birmingham Drive to Liverpool Drive	4,273	4,501	4,578	20
Manchester Avenue	Rossini Drive to San Elijo Avenue	1,076	979	943	20
Manchester Avenue	San Elijo Avenue to I-5	6,164	5,979	5,936	35
Manchester Avenue	I-5 to El Camino Real	30,008	31,464	31,351	35
Manchester Avenue	El Camino Real to Encinitas Boulevard	7,776	7,878	7,825	35
Melba Road	Cornish Drive to Stratford Drive	994	1,007	1,002	20
Melba Road	Regal Road to Bonita Drive	2,045	1,925	1,972	20
Melba Road	Bonita Drive to Balour Drive	3,031	3,354	3,393	20
Melba Road	Balour Drive to Crest Drive	1,011	644	674	20

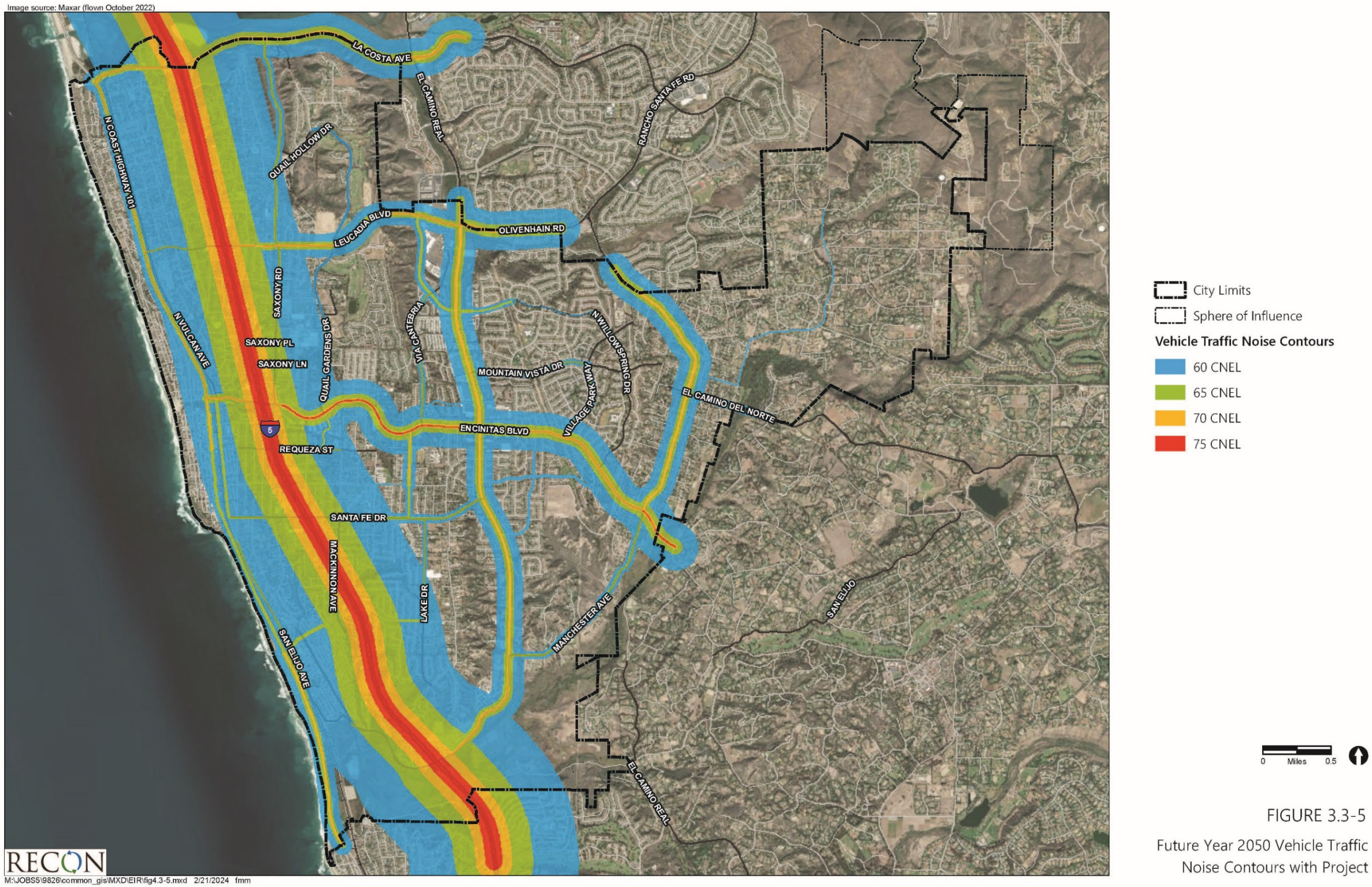
Table 3.3-7 Modeled Vehicle Traffic Parameters

Roadway	Segment	Year 2016 ADT	Year 2050 ADT without Project	Year 2050 ADT with Project	Speed (mph)
Montgomery Avenue	Rossini Drive to Westminster Road	3,005	2,877	2,952	20
Mountain Vista Drive	N El Camino Real to Village Park Way	5,518	5,333	5,454	35
Mountain Vista Drive	Village Park Way to Glen Arbor Drive	1,028	1,090	1,056	35
Mountain Vista Drive	Glen Arbor Drive to N Willowspring Drive	713	763	701	35
Mozart Avenue	Montgomery Avenue to San Elijo Avenue	265	266	268	20
N Coast Highway 101	La Costa Avenue to Encinitas Boulevard	14,276	14,080	14,123	35
N El Portal Street	El Portal Street to Neptune Avenue	257	258	260	20
N Vulcan Avenue	La Costa Avenue to Encinitas Boulevard	6,440	5,745	5,713	20
Nardo Road	Requeza Street to Santa Fe Drive	3,146	3,226	3,206	35
Neptune Ace	Grandview Street to Sylvia Street	832	834	841	20
Olivenhain Road	N El Camino Real to City Boundary	38,672	38,290	38,341	35
Orpheus Street	E Glaucus Road to N Vulcan Avenue	2,342	2,295	2,315	20
Piraeus Street	Glaucus Street to Leucadia Boulevard	3,352	3,286	3,278	20
Puebla Street	Clark Avenue to Del Rio Avenue	210	211	212	20
Puebla Street	Del Rio Avenue to Saxony Road	958	1,412	1,442	20
Quail Gardens Drive	Swallowtail Boulevard to Encinitas Boulevard	7,028	7,482	7,533	20
Quail Hallow Drive	Saxony Road to Swallowtail Boulevard	1,595	1,698	1,727	20
Rancho Santa Fe Road	N City Boundary to El Camino Del Norte	17,459	17,465	17,329	45
Rancho Santa Fe Road	El Camino Del Norte to Manchester Avenue	13,736	14,162	14,129	45
Regal Road	Requeza Street to Santa Fe Drive	7,109	6,692	6,702	20
Requeza Street	Nardo Road to Bonita Drive	1,053	1,192	1,167	20
Requeza Street	Cornish Drive to I-5	2,322	2,459	2,427	35
Requeza Street	I-5 to Nardo Road	4,222	4,143	4,138	35
Rossini Drive	Montgomery Avenue to Manchester Avenue	401	402	405	20
S Coast Highway 101	Encinitas Boulevard to W F Street	15,520	14,921	14,843	35
S Coast Highway 101	W F Street to W K Street	10,856	9,920	9,930	35
S Coast Highway 101	W K Street to San Elijo State Beach/Verdi Avenue	12,259	10,874	10,776	35
S Coast Highway 101	San Elijo State Beach/Verdi Avenue to City Boundary	20,720	19,138	19,171	35
S El Portal Street	El Portal Street to Neptune Avenue	286	287	289	20
S Rancho Santa Fe Road	Encinitas Boulevard to City Boundary	25,916	25,390	25,618	45
S San Elijo Avenue	Santa Fe Drive to Cornish Drive	2,860	3,029	3,005	35
S Vulcan Avenue	Encinitas Boulevard to E Street	13,360	12,545	12,429	35
S Vulcan Avenue	E Street to Santa Fe Drive	8,899	9,277	9,317	35
S Willowspring Drive	S El Camino Real to Encinitas Boulevard	3,497	3,434	3,391	35
San Elijo Avenue	Cornish Drive to Chesterfield Drive	5,936	5,629	5,538	35
San Elijo Avenue	Chesterfield Drive to Kilkenny Drive	1,560	1,376	1,356	35
San Elijo Avenue	Kilkenny Drive to Manchester Avenue	1,560	1,376	1,356	35
Santa Fe Drive	I-5 to Gardena Road	17,286	16,963	17,279	35
Santa Fe Drive	Gardena Road to Nardo Road	10,039	9,325	9,419	35
Santa Fe Drive	Nardo Road to Lake Drive	10,619	9,777	9,664	35
Santa Fe Drive	Lake Drive to S El Camino Real	9,132	8,298	8,211	35
Santa Fe Drive	S San Elijo Avenue to Rubenstein Avenue	7,519	7,920	7,946	35

Table 3.3-7 Modeled Vehicle Traffic Parameters

Roadway	Segment	Year 2016 ADT	Year 2050 ADT without Project	Year 2050 ADT with Project	Speed (mph)
Santa Fe Drive	Rubenstein Avenue to I-5	11,674	11,714	11,835	35
Saxony Road	La Costa Avenue to Encinitas Boulevard	9,316	8,089	8,089	35
2nd Street	W D Street to W K Street	4,748	4,557	4,468	20
Stratford Drive	E D Street to Santa Fe Drive	1,074	1,117	1,128	20
Summit Avenue	Santa Fe Drive to Westminster Road	1,500	1,395	1,346	20
Sylvia Street	Neptune Avenue to 3rd Street	700	702	708	20
3rd Street	W K Street to W B Street	2,577	2,373	2,303	20
3rd Street	W B Street to Sylvia Street	858	904	865	20
Via Cantebria	Garden View Road to Encinitas Boulevard	15,643	15,484	15,636	20
Via Molena	Via Cantebria to El Camino Real	5,488	5,634	5,694	20
Via Montoro	Via Cantebria to El Camino Real	1,539	1,572	1,531	20
Villa Cardiff Drive	Mackinnon Avenue to Birmingham Drive	5,363	5,791	5,758	20
Village Park Way	Mountain Vista Drive to Encinitas Boulevard	7,629	7,479	7,424	35
W B Street	3rd Street to N Coast Highway 101	5,643	5,484	5,379	20
W D Street	3rd Street to N Coast Highway 101	4,478	4,332	4,246	20
K Street	Third Street to S Coast Highway 101	1,846	1,612	1,558	20
W Leucadia Boulevard	Neptune Avenue to N Coast Highway 101	685	640	694	20
Wandering Road	N Willowspring Drive to Mountain Vista Drive	1,538	1,483	1,493	20
Westlake Street	Encinitas Boulevard to Requeza Street	10,728	10,739	10,816	25
Westminster Drive	Summit Avenue to Montgomery Avenue	1,592	1,495	1,521	20
N Willowspring Drive	Glen Arbor Drive to Glen Arbor Drive	4,580	4,717	4,644	35
N Willowspring Drive	Glen Arbor Drive to Encinitas Boulevard	1,774	1,770	1,757	35
N Willowspring Drive	Garden View Road to Glen Arbor Drive	1,461	1,447	1,397	35
N Willowspring Drive	Glen Arbor Drive to Mountain Vista Drive	1,617	1,616	1,595	35
N Willowspring Drive	Mountain Vista Drive to Red Gap Court	641	664	657	35
Windsor Road	Santa Fe Drive to Munevar Road	2,275	2,309	2,300	20
Windsor Road	Munevar Road to Villa Cardiff Drive	2,502	2,363	2,388	20
Woodlake Drive	Windsor Road to Lake Drive	246	279	274	20
N Highway 101	South of City Boundary	20,720	19,138	19,171	35
El Camino Real	North of City Boundary	27,171	27,150	26,809	35
Rancho Santa Fe Road	N City Boundary to Olivenhain Road	17,459	17,465	17,329	45
Calle Barcelona	North of City Boundary	9,031	9,352	9,501	35
Calle Barcelona	Leucadia Boulevard to City Boundary	9,031	9,352	9,501	35
Carlsbad Boulevard	La Costa Avenue to City Boundary	14,276	14,080	14,123	35
Carlsbad Boulevard	North of City Boundary	14,276	14,080	14,123	45
Hygeia Avenue	E Glaucus Street to E Glaucus Street	1,336	1,332	1,314	20
Olivenhain Road	City Boundary to Rancho Santa Fe Road	38,672	38,290	38,341	35
Source: see Appendix E; SANDAG 2024.					
ADT = average daily traffic; mph = miles per hour.					





3.3.4.2 On-Site Generated Noise

Stationary sources of noise include activities associated with a given land use. Multiple land uses in the Planning Area include residential, commercial, mixed-use, and industrial land uses. Various land uses contain on-site stationary noise sources including rooftop heating, ventilation, and air conditioning equipment; mechanical equipment; emergency electrical generators; parking lot activities; loading dock operations; and recreation activities. The Project does not propose any land use changes; therefore, no increases in stationary source noise would occur. Future improvements that could occur if the Project was implemented include roadway improvements such as paving and restriping, facilities to support public transit (e.g., bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks), facilities to support bicycle and micromobility (e.g., multi-use paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations), and facilities to support pedestrian travel (e.g., crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping). None of these mobility improvements would be a significant source of stationary or on-site generated noise or move vehicle travel lanes closer to sensitive receptors. Therefore, the Project would not result in any new sources of stationary noise, and on-site generated noise sources are not addressed further in this analysis.

3.3.4.3 Construction Noise and Vibration

Construction Noise

Construction noise has the potential to result in temporary ambient noise increases due to construction activities associated with mobility network improvements. Construction noise is generated by diesel-powered construction equipment used for roadway improvement activities. Diesel engine-driven trucks also bring materials to and from construction sites. **Table 3.3-8** summarizes typical construction equipment noise levels.

Construction equipment would generate maximum noise levels between 70 and 95 dB(A) L_{max} at 50 feet from the source when in operation. Equipment moves to different locations and goes through varying load cycles, and there are breaks for the operators and for non-equipment tasks. Therefore, average hourly construction noise levels account for a duty cycle, which is the percentage of time that the equipment operates at maximum noise levels. Noise levels would also vary depending on the nature of the construction including the duration of specific activities, nature of the equipment involved, location of the particular receiver, and nature of intervening barriers. Construction noise is considered a point source that attenuates at a rate of 6 dB(A) per doubling of distance.

Equipment	Noise Level at 50 Feet [dB(A) L_{eq}]	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Blasting	94	1%
Chain Saw	85	20%
Clam Shovel	93	20%
Compactor (ground)	80	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%

Table 3.3-8 Typical Construction Equipment Noise Levels		
Equipment	Noise Level at 50 Feet [dB(A) L _{eq}]	Typical Duty Cycle
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 kilovolt amps or less)	70	50%
Generator (more than 25 kilovolt amps)	82	50%
Grader	85	40%
Hydra Break Ram	90	10%
Impact Pile Driver (diesel or drop)	95	20%
In situ Soil Sampling Rig	84	20%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
Paver	85	50%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Roller	74	40%
Scraper	85	40%
Tractor	84	40%
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%
Vibratory Pile Driver	95	20%
Source: FHWA 2006. dB(A) = A-weighted decibels; L _{eq} = 1-hour equivalent noise level.		

Construction Vibration

Potential sources of groundborne vibration include construction activities, railroad activities, and stationary sources. **Table 3.3- 9** lists vibration levels for construction equipment. Vibration impacts due to construction equipment were evaluated using these source vibration levels and the FTA criteria provided in **Table 3.3- 9**

Table 3.3-9 Vibration Levels for Construction Equipment	
Equipment	Approximate PPV Vibration Level at 25 feet (inch per second)
Pile Driver, Impact (Upper Range)	1.518
Pile Drive, Impact (Typical)	0.644
Pile Driver, Sonic (Upper Range)	0.734
Pile Drive, Sonic (Typical)	0.170
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003
Source: FTA 2018. PPV = peak particle velocity.	

3.3.5 Issue 1: Noise Standards

3.3.5.1 Impacts

Vehicle Traffic Noise

Noise level changes greater than 3 dB(A), or a doubling of the acoustic energy, are often identified as audible and considered potentially significant, while changes less than 3 dB(A) are typically not discernible. For the purposes for this analysis, a direct and cumulative roadway noise impact would be considered significant if the Project increases noise levels at a noise sensitive land use 3 dB(A) and if the noise level increases above an unacceptable noise level per the City's General Plan (see **Figure 3.3-3**).

The Project would not introduce new land uses; therefore, the Project would not increase trip generation in the Planning Area. However, roadway reclassifications would result in a change in daily roadway segment volumes to accommodate future growth. The changes in vehicle traffic noise levels adjacent to each roadway segment were calculated using the methodology and parameters discussed in Section 3.2.6.1. The changes in noise levels are summarized in **Table 3.3-10**. Future year 2050 traffic noise contours without the Project and with the Project are shown in **Figure 3.3-4** and **Figure 3.3-5**, respectively. Noise calculation data is provided in Appendix D.

Table 3.3-10 Vehicle Traffic Noise Levels (CNEL)*

Roadway	Segment	Year 2016 Noise Level	Year 2050 without Project Noise Level	Year 2050 with Project Noise Level	Change Over Year 2016	Change Over Year 2050
I-5	South of Manchester Avenue	87.2	87.3	87.3	0.1	0.0
I-5	Manchester Avenue to Birmingham Drive	86.6	86.7	86.7	0.1	0.0
I-5	Birmingham Drive to Santa Fe Drive	86.5	86.7	86.7	0.2	0.0
I-5	Santa Fe Drive to Encinitas Boulevard	86.4	86.6	86.6	0.2	0.0
I-5	Encinitas Boulevard to Leucadia Boulevard	86.4	86.6	86.6	0.2	0.0
I-5	Leucadia Boulevard to La Costa Avenue	86.3	86.5	86.5	0.2	0.0
I-5	North of La Costa Avenue	86.3	86.5	86.5	0.2	0.0
Balour Drive	Encinitas Boulevard to Melba Drive	67.0	67.1	67.1	0.1	0.0
Balour Drive	Melba Drive to Santa Fe Drive	65.0	64.8	64.7	-0.3	-0.1
Birmingham Drive	San Elijo Avenue to Carol View Drive	67.2	66.9	66.9	-0.3	0.0
Birmingham Drive	Carol View Drive to Villa Cardiff Drive	67.7	67.8	67.8	0.1	0.0
Birmingham Drive	Villa Cardiff Drive to Lake Drive	65.1	65.2	65.2	0.1	0.0
Bonita Drive	Requeza Street to Melba Road	53.1	53.1	53.1	0.0	0.0
Bonita Drive	Melba Road to Santa Fe Drive	53.3	54.3	54.2	0.9	-0.1
Cerro Street	Encinitas Boulevard to Avenida De Las Adelsas	59.4	60.7	60.7	1.3	0.0
Cerro Street	Avenida De Las Adelsas to S El Camino Real	59.6	60.8	60.6	1.0	-0.2
Chesterfield Drive	S Coast Highway 101 to Oxford Avenue	59.0	58.7	58.7	-0.3	0.0
Chesterfield Drive	Oxford Avenue to Edinburg Avenue	48.5	48.5	48.6	0.1	0.1
Clark Avenue	Leucadia Boulevard to Puebla Street	54.5	56.1	56.2	1.7	0.1
Cornish Drive	E D Street to San Elijo Avenue	50.3	48.5	48.3	-2.0	-0.2
Crest Drive	Santa Fe Drive to Melba Road	49.8	50.1	49.8	0.0	-0.3
E D Street	S Coast Highway 101 to Stratford Drive	53.2	52.5	52.5	-0.7	0.0
E F Street	S Vulcan Avenue to Cornish Drive	57.2	59.8	59.8	2.6	0.0
E Glaucus Street	N Vulcan Avenue to Hygeia Avenue	52.9	52.9	52.8	-0.1	-0.1
E Glaucus Street	Hygeia Avenue to Hymettus Avenue	53.9	54.0	54.0	0.1	0.0
E Glaucus Street	Hymettus Avenue to Orpheus Avenue	46.9	46.9	47.2	0.3	0.3
Edinburg Avenue	Liverpool Drive to Chesterfield Drive	48.8	48.8	48.9	0.1	0.1
El Camino Del Norte	City Boundary to Rancho Santa Fe Road	65.4	65.3	65.2	-0.2	-0.1
N El Camino Real	City Boundary to Leucadia Boulevard	70.3	70.3	70.3	0.0	0.0
N El Camino Real	Leucadia Boulevard to Encinitas Boulevard	71.1	71.0	71.0	-0.1	0.0
S El Camino Real	Encinitas Boulevard to Crest Drive	70.7	70.2	70.2	-0.5	0.0
S El Camino Real	Crest Drive to Manchester Avenue	70.3	70.1	70.1	-0.2	0.0
El Portal Street	La Mesa Avenue to La Veta Avenue	50.7	50.7	50.7	0.0	0.0
El Portal Street	La Veta Avenue to N Coast Highway 101	52.6	52.6	52.6	0.0	0.0

Table 3.3-10 Vehicle Traffic Noise Levels (CNEL)*

Roadway	Segment	Year 2016 Noise Level	Year 2050 without Project Noise Level	Year 2050 with Project Noise Level	Change Over Year 2016	Change Over Year 2050
Encinitas Boulevard	N Coast Highway 101 to I-5	70.3	70.2	70.2	-0.1	0.0
Encinitas Boulevard	I-5 to Calle Magdalena	71.0	71.1	71.1	0.1	0.0
Encinitas Boulevard	Calle Magdalena to Westlake Street	72.4	72.7	72.7	0.3	0.0
Encinitas Boulevard	Westlake Street to N El Camino Real	71.9	72.1	72.1	0.2	0.0
Encinitas Boulevard	N El Camino Real to Rancho Santa Fe Road	71.8	71.8	71.8	0.0	0.0
Garden View Road	City Boundary to El Camino Real	65.6	65.7	65.8	0.2	0.1
Garden View Road	El Camino Real to Garden View Court	65.5	65.9	66.0	0.5	0.1
Garden View Road	Garden View Court to Glan Arbor Drive	64.0	64.2	64.2	0.2	0.0
Glen Arbor Drive	Garden View Road to Willowspring Drive	53.4	53.4	53.4	0.0	0.0
Glen Arbor Drive r	Willowspring Drive to Mountain Vista Drive	49.6	49.8	49.7	0.1	-0.1
Glen Arbor Drive	Mountain Vista Drive to N Willowspring Drive	48.3	47.7	47.7	-0.6	0.0
Grandview Street	Neptune Avenue to N Coast Highway 101	52.6	52.7	52.7	0.1	0.0
Hymettud Avenue	E Glaucus Street to E Glaucus Street	50.5	50.2	50.4	-0.1	0.2
La Costa Avenue	N Coast Highway 101/Carlsbad Boulevard to Piraeus Street	68.6	69.3	69.3	0.7	0.0
La Costa Avenue	Piraeus Street to City Boundary	71.5	71.7	71.8	0.3	0.1
Lake Drive	Santa Fe Drive to Birmingham Drive	63.2	63.2	63.1	-0.1	-0.1
Leucadia Boulevard	N Coast Highway 101 to Orpheus Avenue	63.8	63.8	63.7	-0.1	-0.1
Leucadia Boulevard	Orpheus Avenue to N El Camino Real	69.6	69.7	69.7	0.1	0.0
Liverpool Drive	Edinburg Avenue to Mackinnon Avenue	47.3	47.3	47.4	0.1	0.1
Lone Jack Road	Rancho Santa Fe Road to Lone Hill Ln	58.1	58.2	58.1	0.0	-0.1
Mackinnon Avenue	Santa Fe Drive to Villa Cardiff Drive	65.5	65.6	65.5	0.0	-0.1
Mackinnon Avenue	Villa Cardiff Drive to Birmingham Drive	63.2	62.9	62.8	-0.4	-0.1
Mackinnon Avenue	Birmingham Drive to Liverpool Drive	58.0	58.2	58.3	0.3	0.1
Manchester Avenue	Rossini Drive to San Elijo Avenue	52.0	51.6	51.4	-0.6	-0.2
Manchester Avenue	San Elijo Avenue to I-5	63.9	63.8	63.7	-0.2	-0.1
Manchester Avenue	I-5 to El Camino Real	70.8	71.0	71.0	0.2	0.0

Table 3.3-10 Vehicle Traffic Noise Levels (CNEL)*

Roadway	Segment	Year 2016 Noise Level	Year 2050 without Project Noise Level	Year 2050 with Project Noise Level	Change Over Year 2016	Change Over Year 2050
Manchester Avenue	El Camino Real to Encinitas Boulevard	64.9	65.0	64.9	0.0	-0.1
Melba Road	Cornish Drive to Stratford Drive	51.6	51.7	51.7	0.1	0.0
Melba Road	Regal Road to Bonita Drive	54.8	54.5	54.6	-0.2	0.1
Melba Road	Bonita Drive to Balour Drive	56.5	56.9	57.0	0.5	0.1
Melba Road	Balour Drive to Crest Drive	51.7	49.7	49.9	-1.8	0.2
Montgomery Avenue	Rossini Drive to Westminster Road	56.4	56.2	56.4	0.0	0.2
Mountain Vista Drive	N El Camino Real to Village Park Way	63.4	63.3	63.4	0.0	0.1
Mountain Vista Drive	Village Park Way to Glen Arbor Drive	56.1	56.4	56.2	0.1	-0.2
Mountain Vista Drive	Glen Arbor Drive to N Willowspring Drive	54.5	54.8	54.5	0.0	-0.3
Mozart Avenue	Montgomery Avenue to San Elijo Avenue	45.9	45.9	45.9	0.0	0.0
N Coast Highway 101	La Costa Avenue to Encinitas Boulevard	67.5	67.5	67.5	0.0	0.0
N El Portal Street	El Portal Street to Neptune Avenue	45.8	45.8	45.8	0.0	0.0
N Vulcan Avenue	La Costa Avenue to Encinitas Boulevard	59.7	59.2	59.2	-0.5	0.0
Nardo Road	Requeza Street to Santa Fe Drive	61.0	61.1	61.1	0.1	0.0
Neptune Ace	Grandview Street to Sylvia Street	50.9	50.9	50.9	0.0	0.0
Olivenhain Road	N El Camino Real to City Boundary	71.9	71.8	71.8	-0.1	0.0
Orpheus Street	E Glaucus Road to N Vulcan Avenue	55.3	55.3	55.3	0.0	0.0
Piraeus Street	Glaucus Street to Leucadia Boulevard	56.9	56.8	56.8	-0.1	0.0
Puebla Street	Clark Avenue to Del Rio Avenue	44.9	44.9	44.9	0.0	0.0
Puebla Street	Del Rio Avenue to Saxony Road	51.5	53.1	53.2	1.7	0.1
Quail Gardens Drive	Swallowtail Boulevard to Encinitas Boulevard	60.1	60.4	60.4	0.3	0.0
Quail Hallow Drive	Saxony Road to Swallowtail Boulevard	53.7	54.0	54.0	0.3	0.0
Rancho Santa Fe Road	N City Boundary to El Camino Del Norte	71.0	71.0	70.9	-0.1	-0.1
Rancho Santa Fe Road	El Camino Del Norte to Manchester Avenue	69.9	70.1	70.0	0.1	-0.1
Regal Road	Requeza Street to Santa Fe Drive	60.2	59.9	59.9	-0.3	0.0
Requeza Street	Nardo Road to Bonita Drive	51.9	52.4	52.3	0.4	-0.1
Requeza Street	Cornish Drive to I-5	59.7	59.9	59.9	0.2	0.0
Requeza Street	I-5 to Nardo Road	62.3	62.2	62.2	-0.1	0.0
Rossini Drive	Montgomery Avenue to Manchester Avenue	47.7	47.7	47.7	0.0	0.0
S Coast Highway 101	Encinitas Boulevard to W F Street	67.9	67.7	67.7	-0.2	0.0
S Coast Highway 101	W F Street to W K Street	66.4	66.0	66.0	-0.4	0.0

Table 3.3-10 Vehicle Traffic Noise Levels (CNEL)*

Roadway	Segment	Year 2016 Noise Level	Year 2050 without Project Noise Level	Year 2050 with Project Noise Level	Change Over Year 2016	Change Over Year 2050
S Coast Highway 101	W K Street to San Elijo State Beach/Verdi Avenue	66.9	66.4	66.3	-0.6	-0.1
S Coast Highway 101	San Elijo State Beach/Verdi Avenue to City Boundary	69.2	68.8	68.8	-0.4	0.0
S El Portal Street	El Portal Street to Neptune Avenue	46.2	46.2	46.3	0.1	0.1
S Rancho Santa Fe Road	Encinitas Boulevard to City Boundary	72.7	72.6	72.6	-0.1	0.0
S San Elijo Avenue	Santa Fe Drive to Cornish Drive	60.6	60.8	60.8	0.2	0.0
S Vulcan Avenue	Encinitas Boulevard to E Street	67.3	67.0	66.9	-0.4	-0.1
S Vulcan Avenue	E Street to Santa Fe Drive	65.5	65.7	65.7	0.2	0.0
S Willowspring Drive	S El Camino Real to Encinitas Boulevard	61.4	61.4	61.3	-0.1	-0.1
San Elijo Avenue	Cornish Drive to Chesterfield Drive	63.7	63.5	63.4	-0.3	-0.1
San Elijo Avenue	Chesterfield Drive to Kilkenny Drive	57.9	57.4	57.3	-0.6	-0.1
San Elijo Avenue	Kilkenny Drive to Manchester Avenue	57.9	57.4	57.3	-0.6	-0.1
Santa Fe Drive	I-5 to Gardena Road	68.4	68.3	68.4	0.0	0.1
Santa Fe Drive	Gardena Road to Nardo Road	66.0	65.7	65.7	-0.3	0.0
Santa Fe Drive	Nardo Road to Lake Drive	66.3	65.9	65.9	-0.4	0.0
Santa Fe Drive	Lake Drive to S El Camino Real	65.6	65.2	65.1	-0.5	-0.1
Santa Fe Drive	S San Elijo Avenue to Rubenstein Avenue	64.8	65.0	65.0	0.2	0.0
Santa Fe Drive	Rubenstein Avenue to I-5	66.7	66.7	66.7	0.0	0.0
Saxony Road	La Costa Avenue to Encinitas Boulevard	65.7	65.1	65.1	-0.6	0.0
2nd Street	W D Street to W K Street	58.4	58.2	58.2	-0.2	0.0
Stratford Drive	E D Street to Santa Fe Drive	52.0	52.1	52.2	0.2	0.1
Summit Avenue	Santa Fe Drive to Westminster Road	53.4	53.1	52.9	-0.5	-0.2
Sylvia Street	Neptune Avenue to 3rd Street	50.1	50.1	50.2	0.1	0.1
3rd Street	W K Street to W B Street	55.8	55.4	55.3	-0.5	-0.1
3rd Street	W B Street to Sylvia Street	51.0	51.2	51.0	0.0	-0.2
Via Cantabria	Garden View Road to Encinitas Boulevard	63.6	63.6	63.6	0.0	0.0
Via Molena	Via Cantabria to El Camino Real	59.0	59.2	59.2	0.2	0.0
Via Montoro	Via Cantabria to El Camino Real	53.5	53.6	53.5	0.0	-0.1
Villa Cardiff Drive	Mackinnon Avenue to Birmingham Drive	58.9	59.3	59.3	0.4	0.0
Village Park Way	Mountain Vista Drive to Encinitas Boulevard	64.8	64.7	64.7	-0.1	0.0
W B Street	3rd Street to N Coast Highway 101	59.2	59.0	59.0	-0.2	0.0
W D Street	3rd Street to N Coast Highway 101	58.2	58.0	57.9	-0.3	-0.1
K Street	Third Street to S Coast Highway 101	54.3	53.7	53.6	-0.7	-0.1
W Leucadia Boulevard	Neptune Avenue to N Coast Highway 101	50.0	49.7	50.1	0.1	0.4
Wandering Road	N Willowspring Drive to Mountain Vista Drive	53.5	53.4	53.4	-0.1	0.0

Table 3.3-10 Vehicle Traffic Noise Levels (CNEL)*

Roadway	Segment	Year 2016 Noise Level	Year 2050 without Project Noise Level	Year 2050 with Project Noise Level	Change Over Year 2016	Change Over Year 2050
Westlake Street	Encinitas Boulevard to Requeza Street	63.7	63.7	63.7	0.0	0.0
Westminster Drive	Summit Avenue to Montgomery Avenue	53.7	53.4	53.5	-0.2	0.1
N Willowspring Drive	Glen Arbor Drive to Glen Arbor Drive	62.6	62.7	62.7	0.1	0.0
N Willowspring Drive	Glen Arbor Drive to Encinitas Boulevard	58.5	58.5	58.4	-0.1	-0.1
N Willowspring Drive	Garden View Road to Glen Arbor Drive	57.6	57.6	57.5	-0.1	-0.1
N Willowspring Drive	Glen Arbor Drive to Mountain Vista Drive	58.1	58.1	58.0	-0.1	-0.1
N Willowspring Drive	Mountain Vista Drive to Red Gap Court	54.1	54.2	54.2	0.1	0.0
Windsor Road	Santa Fe Drive to Munevar Road	55.2	55.3	55.3	0.1	0.0
Windsor Road	Munevar Road to Villa Cardiff Drive	55.6	55.4	55.4	-0.2	0.0
Woodlake Drive	Windsor Road to Lake Drive	45.6	46.1	46.0	0.4	-0.1
N Highway 101	South of City Boundary	69.2	68.8	68.8	-0.4	0.0
El Camino Real	North of City Boundary	70.3	70.3	70.3	0.0	0.0
Rancho Santa Fe Road	N City Boundary to Olivenhain Road	71.0	71.0	70.9	-0.1	-0.1
Calle Barcelona	North of City Boundary	65.6	65.7	65.8	0.2	0.1
Calle Barcelona	Leucadia Boulevard to City Boundary	65.6	65.7	65.8	0.2	0.1
Carlsbad Boulevard	La Costa Avenue to City Boundary	67.5	67.5	67.5	0.0	0.0
Carlsbad Boulevard	North of City Boundary	70.1	70.0	70.0	-0.1	0.0
Hygeia Avenue	E Glaucus Street to E Glaucus Street	52.9	52.9	52.8	-0.1	-0.1
Olivenhain Road	City Boundary to Rancho Santa Fe Road	71.9	71.8	71.8	-0.1	0.0
Source: see Appendix D; SANDAG 2024.						
*Noise level is modeled at 50 feet from the roadway centerline.						

As previously discussed, the Project would not generate new trips within the Planning Area. The differences in future year 2050 roadway segment volumes are due to the redistribution of traffic due to changes in roadway classifications to accommodate planned growth in the Planning Area. As shown, compared to baseline year 2016 noise levels, the Project's buildout would result in a cumulative change in noise levels of 2.6 dB or less. When compared to buildout year 2050 noise levels without the Project (i.e., buildout under the existing Circulation Element), the change in noise levels would be 0.4 dB or less. Further, some roadway segments would experience a decrease in noise levels due to traffic redistribution. Noise level increases would be less than 3 dB; therefore, impacts associated with an increase in ambient noise levels would be less than significant.

As shown on **Figure 3.3-5** vehicle traffic noise levels would be loudest near I-5. Noise levels also have the potential to exceed the City's noise compatibility guidelines near other major roads in the Planning

Area including South Coast Highway 101, El Camino Real, Rancho Santa Fe Road, Encinitas Boulevard, Olivenhain Road, and La Costa Avenue. However, the Project would not include the construction of any land uses and would result in a less-than-significant increase in ambient vehicle traffic noise levels. Therefore, impacts would be less than significant.

Construction Noise

The Project would provide a long-term blueprint that guides transportation decision making, plans for diverse modes and mobility options, envisions future mobility improvements, and includes updated goals, policies, and multimodal networks. The Project would revise the City's existing Circulation Element policies to account for changes made to state law with the recent development of several mode-specific, strategic, community, and neighborhood plans to create a cohesive mobility framework. The Project is a planning level document and no specific construction activities are proposed at this time. Construction activities that could occur to implement the mobility network proposed by the MEU could include roadway improvements such as paving and restriping, facilities to support public transit (e.g., bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks), facilities to support bicycle and micromobility (e.g., multi-use paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations), facilities to support pedestrian travel such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping, and other mobility-related improvement projects.

The exact number and timing of all development projects that could occur under Project buildout are unknown. Therefore, exact construction locations cannot be accurately determined at the program level of analysis. However, the loudest construction activities that could occur if the Project was implemented would be associated with paving. The simultaneous use of a roller and a paver for these activities would result in a noise level of approximately 82 dB(A) Leq at 50 feet. Although the exact type of construction activity is not known at this level of analysis, this construction noise level is representative of a wide range of construction activities that could occur if the Project was implemented. Noise generated by other activities that require less construction equipment would be less than 82 dB(A) Leq at 50 feet. As discussed in Section 3.3.4.3, the City's Noise Abatement and Control Ordinance specifies a construction noise level limit of 75 dB(A) Leq at residential properties. A noise level of 82 dB(A) Leq at 50 feet would attenuate to 75 dB(A) Leq at approximately 110 feet. It is possible that future construction activities would occur within 110 feet of residential properties.

All projects are required to comply with the City's Noise Abatement and Control Ordinance (Municipal Code Section 9.32.410) for construction hours. Certain future projects may have potential to result in temporary and intermittent noise level increases typical of roadway projects, but would not be expected to be significant. Future improvement projects would be subject to California Environmental Quality Act (CEQA) evaluation and any necessary project-specific noise-reduction strategies would be developed at that time. Impacts would be less than significant.

3.3.5.2 Significance of Impacts

Vehicle Traffic Noise

Noise level increases resulting from Project implementation would be less than 3 dB, therefore, impacts associated with an increase in ambient noise levels would be less than significant.

Construction Noise

All projects are required to comply with the City's Noise Abatement and Control Ordinance (Municipal Code Section 9.32.410) for construction hours. Future improvement projects would be subject to CEQA evaluation, and any necessary project-specific noise-reduction strategies would be developed at that time. Impacts would be less than significant.

3.3.5.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.3.6 Issue 2: Vibration

3.3.6.1 Impacts

Human reaction to vibration is dependent on the environment the receiver is in, as well as individual sensitivity. For example, outdoor vibration is rarely noticeable and generally not considered annoying. Typically, humans must be inside a structure for vibrations to become noticeable and/or annoying (FTA 2018). Based on several federal studies, the threshold of perception is 0.035 in/sec PPV, with 0.24 in/sec PPV as distinctly perceptible (Caltrans 2013). Based on the best available data, impacts associated with Project construction equipment vibration shall be considered significant if the PPV exceeds 0.2 in/sec (see **Table 3.3-3**). Vibration perception would occur at structures, as people do not perceive vibrations without vibrating structures (FTA 2018).

Construction activities produce varying degrees of ground vibration depending on the equipment and methods employed. While ground vibrations from typical construction activities rarely reach levels high enough to cause damage to structures, special consideration must be given to sensitive or historic land uses near the construction site. Construction activities that typically generate the highest levels of vibration are blasting and impact pile driving; however, future improvements would not require pile driving or blasting. **Table 3.3-11** summarizes the vibration levels generated by equipment that could be used within the Planning Area.

Equipment	PPV (in/sec) at 25 feet	Distance to 0.2 PPV (feet)	Distance to 0.12 PPV (feet)
Large Bulldozer	0.089	12	19
Small Bulldozer	0.003	<1	<1
Loaded Truck	0.076	10	17
Jackhammer	0.035	5	8
Source: FTA 2018. in/sec = inch per second; PPV = peak particle velocity.			

Construction equipment with the greatest potential to generate vibration would be large bulldozers. According to the FTA, large bulldozers generate vibration levels of 0.089 in/sec PPV at 25 feet. Vibration levels would exceed 0.2 in/sec PPV at distances of 12 feet or less between the equipment and a timber and masonry building and 19 feet or less between the equipment and a building extremely susceptible to vibration damage. It is not anticipated that construction equipment would be within 12 feet of buildings although it cannot be dismissed without detailed construction plans.

It is not anticipated that construction equipment would be within 12 feet of buildings, and therefore, significant construction vibration impacts are not foreseeable. Future improvement projects would be subject to CEQA evaluation, and any necessary vibration-reduction strategies would be developed at that time. Impacts would be less than significant.

The proposed Project would not include stationary sources of vibration (e.g., heavy equipment operations). Operational vibration in the Project vicinity would be generated by vehicular travel on the local roadways. According to the FTA Transit Noise and Vibration Impact Assessment guidance document, vibration from traffic is rarely perceptible (FTA 2018). Project-related traffic vibration levels would not be perceptible by sensitive receptors. Therefore, the Project would result in a less-than-significant impact related to operational vibration.

3.3.6.2 Significance of Impacts

It is not anticipated that construction equipment would be within 12 feet of buildings, and therefore, significant construction vibration impacts are not foreseeable. Future improvement projects would be subject to CEQA evaluation, and any necessary vibration-reduction strategies would be developed at that time. Construction and operational vibration impacts would be less than significant.

3.3.6.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.3.7 Issue 3: Airports

3.3.7.1 Impacts

McClellan-Palomar Airport is the closest airport to the Planning Area and is located within the city of Carlsbad approximately 2.5 miles north of the Planning Area. The Planning Area is outside of the Airport Influence Area and is located more than 2 miles south of the 60 CNEL airport noise contour. Additionally, the Project would not introduce new noise-sensitive land uses and would not expose people to excessive airport noise levels. Therefore, no impact would occur.

3.3.7.2 Significance of Impacts

The Project would not expose people to excessive airport noise levels. No impact would occur.

3.3.7.3 Mitigation Measures

No airport noise impacts would occur. Mitigation would not be required.

3.3.8 Conclusion

The Project would not introduce new land uses; therefore, would not increase trip generation in the Planning Area. However, roadway reclassification would result in a change in daily roadway segment volumes. When compared to future noise under the existing mobility network, noise level increases associated with the Project would be less than 3 dB; therefore, impacts associated with an increase in ambient noise levels would be less than significant. The Project would not include the construction of

any land uses and would result in a less-than-significant increase in ambient vehicle traffic noise levels. Vehicle traffic impacts would be less than significant.

Construction noise levels would have the potential to exceed 75 dB(A) L_{eq} if construction activities occur within 110 feet of residential properties. However, all projects are required to comply with the City's Noise Abatement and Control Ordinance (Municipal Code Section 9.32.410) for construction hours. Certain future projects may have potential to result in temporary and intermittent noise level increases typical of roadway projects but would not be expected to be significant. Future improvement projects would be subject to CEQA evaluation, and any necessary project-specific noise-reduction strategies would be developed at that time. Impacts would be less than significant.

Construction equipment could exceed a vibration level of 0.2 in/sec PPV at distances of 12 feet or less. It is not anticipated that construction equipment would be within 12 feet of buildings; therefore, significant construction vibration impacts are not foreseeable. Future improvement projects would be subject to CEQA evaluation, and any necessary vibration-reduction strategies would be developed at that time. Impacts would be less than significant. The Project would not include stationary sources of vibration (e.g., heavy equipment operations). Operational vibration in the Project vicinity would be generated by vehicular travel on the local roadways; however, vibration from traffic is rarely perceptible (FTA 2018). Project-related traffic vibration levels would not be perceptible by sensitive receptors. Therefore, the Project would result in a less than significant impact related to operational vibration.

The McClellan-Palomar Airport is the closest airport to the Planning Area and is located within the city of Carlsbad approximately 2.5 miles north of the Planning Area. The Planning Area is outside of the Airport Influence Area and more than 2 miles south of the 60 CNEL airport noise contour. The Project would not expose people to excessive airport noise levels. No impact would occur.

3.4 Land Use and Planning

This section identifies existing land use conditions in the City of Encinitas and analyzes the consistency of the City's Mobility Element Update (MEU; Project) of its General Plan with relative land use planning documents and policies. This section is based on land use and technical data developed by the City and the adopted City of Encinitas General Plan and City Municipal Code.

3.4.1 Existing Conditions

3.4.1.1 Environmental Setting

Located along six miles of Pacific Ocean coastline, the City of Encinitas is approximately 25 miles north of the City of San Diego. It encompasses approximately 20 square miles and is considered almost fully developed. It is bordered by the City of Carlsbad to the north, unincorporated San Diego County to the east, the City of Solana Beach to the South, and the Pacific Ocean to the west. The City includes five designated communities and was incorporated in 1986. At its inception, the City joined together the communities of New Encinitas, Old Encinitas, Cardiff-by-the-Sea, Olivenhain, and Leucadia to create a single city. Furthermore, the City is well connected within San Diego County with access to all modes of transportation including regional rail services, transit services, state routes, bicycle networks, trails, and pedestrian networks.

3.4.1.2 Existing Characteristics

In the coastal communities of Leucadia, Old Encinitas, and Cardiff, development intensity generally decreases from west to east into New Encinitas and becomes semi-rural in the hills of Olivenhain. The City is developed with a range of land uses that includes a mix of single-family, multifamily (condominiums, apartments, duplexes) units and estate residential homes spread through coastal, inland, and rural residential neighborhoods. Retail, office, and service commercial uses in the City are primarily located along transportation corridors and are generally characterized as automobile-oriented strip commercial, Main Street/downtown, Village Center, and neighborhood service commercial.

The City has a significant number of agricultural greenhouses along both sides of Interstate 5 in Leucadia, Old and New Encinitas, and Cardiff. There are also mixed public facilities, including educational, institutional, public utility, and governmental offices—and other land uses, including agricultural field crops, recreational parks, trails, and open space, as well as public beaches, habitat areas, watersheds, and vacant lands. Lower-density uses, including agriculture, recreational uses, and low-density residential uses are largely located within the eastern portion of the City.

3.4.1.3 Existing Land Use Detail

The City encompasses 13,328 acres within the Planning Area. The Planning Area includes the City's incorporated limits and Sphere of Influence, with a distribution of uses including residential, commercial and office, industrial, public and quasi-public, parks and open space, agriculture, vacant uses, roads, and 240 acres of water (bays/lagoons, ponds).

Residential

Residential uses are primarily located in the City's residential neighborhoods. The types of single-family housing range from historic single-family bungalows in Cardiff-by-the-Sea and Old Encinitas to post-World-War II homes located in the hills of Olivenhain. Old Encinitas has a variety of park, public, and residential uses along its Pacific coastline. The coastal edge is generally urbanized, primarily as single-family with some multifamily residential units. Residential zoning in Old Encinitas includes high density along the coast, with high, medium, and low density east of Coast Highway 101 and Interstate 5.

The inland residential area in the northeast of Old Encinitas features a single-family residential subdivision, typical of the late 1970s through the mid-1990s suburban style with curvilinear streets and cul-de-sacs with larger homes set back from the street. The inland residential neighborhoods east and west of Interstate 5 in Old Encinitas were developed in the 1960s and 1970s and feature grid streets. The neighborhoods are comprised mainly of single-family dwellings with some "twin homes" and condominiums dispersed throughout. Current zoning allows for attached single-family and multifamily infill along major arterials.

Most of the residential neighborhoods in New Encinitas include suburban housing styles typical of the 1980s and 1990s. The community's residential areas were mainly developed through planned developments and are generally characterized by low-density, single-family neighborhoods with pockets of medium-density, single-family and multifamily residential with greenbelt and natural open space networks. New Encinitas is primarily zoned for attached and detached single-family residential.

Almost all the City's mobile home parks are located in the beach-oriented community of Leucadia. Leucadia is generally urbanized, primarily with single-family residential and some multifamily residential uses. Residential uses predominate, with limited commercial and specialty retail along Highway 101. Residential zoning density is higher along Coast Highway 101, with the remaining residential areas of Leucadia containing lower-density zoning.

The coastal community of Cardiff-by-the-Sea is comprised primarily of single-family residential uses, and can be characterized as a vibrant, walkable beach village.

Olivenhain is characterized by rural, low-density residential uses on large lots, which is considerably different than the coastal communities to the west. Olivenhain is reminiscent of a semirural or country community with a pastoral setting, a trail system, and historic buildings that reinforce its relaxed and open theme.

Residential land use currently accounts for 44.5% of all land area in the City, which is more than any other land use. The primary existing housing type in the City (81.3%) is single-family homes. Multifamily condominiums, townhomes, and apartments currently comprise 15.8% of the existing housing supply. Mobile homes make up 2.9% of the supply.

Commercial and Office

Commercial and office uses account for 417 acres (approximately 3%) of total land area in the City. These uses are located along commercial corridors, including El Camino Real, Encinitas Boulevard and Highway 101, and in the commercial districts of downtown at Old Encinitas and Cardiff-by-the-Sea. Local-serving commercial uses, such as restaurants, cafes, supermarkets, and other types of retail, are

located along the commercial corridors, while a mix of tourist and local-serving uses are located downtown. Motels and hotels, which are also assigned to this category, are mostly along the Highway 101 corridor. There are primarily two mixed-use corridor locations in the City, where residential and commercial land uses can be mixed on the same parcel or site. One is on 1st Street (Coast Highway 101) and 2nd Street in the downtown area, and the other is on N. Coast Highway 101 in the community of Leucadia.

Light Industrial

Light industrial and warehousing use accounts for 21 acres (less than 1/2%) of total land area in the City. These uses include storage facilities and some service-related uses, such as auto body repair.

Public and Quasi-Public

Public and quasi-public uses include schools, public facilities, churches, medical facilities, and utilities, among others. These uses account for 787 acres (approximately 6%) of the total land area in the City. Specific uses include the Encinitas Civic Center and Library, San Elijo Water Reclamation Facility, and the City's five fire stations.

Parks and Open Space

Encinitas' diverse range of parks and open space includes regional, community, and neighborhood parks, as well as open space areas designated for wildlife habitat. These public and private uses account for 2,945 acres (approximately 22%) of land area in the City.

Agriculture

Agricultural uses include greenhouses, small orchards, and crops. These uses account for 419 acres (approximately 3%) of land area in the City. Agricultural uses are dispersed within the inland flat areas, mostly east of Interstate 5. The City has significant agricultural greenhouses along both sides of Interstate 5 in Leucadia, Old and New Encinitas, and Cardiff-by-the-Sea.

Vacant and Undeveloped

Vacant and undeveloped lands account for 1,075 acres (approximately 8%) of the total land area in the City. These areas are dispersed throughout the City and are located primarily nearby public facilities and utilities or single-family residential land use areas of each community. Although over 200 vacant and undeveloped lots are located throughout the City, only housing sites L-4, L-7, Alt-5, OE-7, O-2, O-4, O-6, and C-6 (study area portion) are currently vacant.

3.4.1.4 Regional Land Use (Adjacent Land Uses and Surrounding Communities)

City of Carlsbad

The City of Carlsbad is located to the north of the City of Encinitas. Between the cities is the 610-acre Batiquitos Lagoon State Marine Reserve, and northwest of the Batiquitos Lagoon is the Ponto Beach area. The community surrounding the Ponto Beach area primarily consists of small lot, single-family homes, mobile homes, and a mixture of nonresidential uses. These nonresidential uses include South Carlsbad State Beach campgrounds on Highway 101, general commercial uses along Avenida Encinas, and vacant and underutilized commercial properties on Ponto Drive.

Efforts are ongoing to envision a variety of new uses in the 50-acre Ponto Beach area, which may include a mixture of recreation, visitor-serving commercial, and residential uses. The Ponto Beach area is in the master planned Aviara community, which is inland, north, and overlooks portions of the Batiquitos Lagoon. The Aviara community comprises large single-family homes and features an 18-hole golf course, a resort, and a spa.

Most of the land uses in the southeast quadrant of the City of Carlsbad consist of single-family residential. The La Costa community consists of several master planned communities—La Costa Oaks and La Costa Valley are closest to the City. Some commercial/office uses are located along El Camino Real, Calle Barcelona, and Rancho Santa Fe Road. An assisted living/retirement community is located at the southeast corner of El Camino Real and La Costa Avenue.

The City of Carlsbad has a total area of approximately 24,788 acres. The majority of existing land uses in Carlsbad, 14,194 acres (57%), are residential uses. There are approximately 43,844 total housing units citywide. Approximately 4,134 acres (17%) of Carlsbad's land is devoted to nonresidential uses such as retail, commercial, and/or industrial use.

City of Solana Beach

The City of Solana Beach (total population of 13,872) is located just south of Encinitas. Land uses adjacent to the City of Encinitas include single-family residential and recreation/open space. Most of the San Elijo Lagoon Reserve is located in the City of Encinitas, but a small portion of the lagoon is within the City of Solana Beach. Solana Beach's predominant commercial land uses are along Highway 101—a key focus areas of Solana Beach's business activity. Along Highway 101, there are many family-owned and operated stores, restaurants and businesses. While some office/professional land uses are on the west side of Highway 101, just south of the City of Solana Beach, most of the uses on this north-south corridor are commercial.

The incorporated area of Solana Beach is about 2,211 acres, with approximately 1,200 acres (54%) dedicated to some type of residential development. There are approximately 6,521 total housing units citywide. There are mixes of other land uses in Solana Beach, such as recreation/open space (12%), commercial/office (6%), and public/institutional (6%). Solana Beach has been extensively developed—less than 1% of its land is vacant.

County of San Diego

To the east of the City of Encinitas are unincorporated areas of San Diego County, including the San Dieguito Community Planning Area. The San Dieguito Community Planning Area is generally a low-density estate residential area with a population of about 28,815. There are approximately 10,987 total housing units in the San Dieguito Community Planning Area.

Prior to the incorporation of the Cities of Encinitas and Solana Beach in 1986, urbanized coastal areas were the core of the unincorporated community planning area. Today, the focus has shifted to inland communities including Elfin Forest, Fairbanks Ranch, Harmony Grove, Ranch Santa Fe, and Whispering Palms.

The most developed communities of unincorporated San Diego County are located along its westernmost boundaries and include the community planning areas of Spring Valley, Sweetwater,

Valle de Oro, Lakeside, San Dieguito, portions of North County Metro, and Fallbrook. There are approximately 503,320 people living in unincorporated areas of San Diego County.

3.4.2 Regulatory Framework

Several State, regional, and local plans, programs, and regulations are applicable to the Project and are discussed below.

3.4.2.1 Federal

There are no federal regulations for land use planning applicable to the Mobility Element.

3.4.2.2 State

Assembly Bill 1358 Complete Streets Act

Assembly Bill 1358 (AB 1358) (2008) requires all cities and counties, upon the next update of their circulation element, to plan for the development of multimodal transportation networks. AB 1358 places the planning, designing, and building of complete streets into the larger planning framework of the General Plan by requiring jurisdictions to amend their circulation elements to plan for multimodal transportation networks. These networks should allow for all users to effectively travel by motor vehicle, foot, bicycle, and transit to reach key destinations within their community and the larger region.

SB 743

State Senate Bill 743 (SB 743) (2013) created a process to change the way projects analyze transportation impacts pursuant to California Environmental Quality Act (CEQA). Currently, an environmental review of transportation impacts focuses on the delay that vehicles experience at intersections and on roadway segments. That delay is often measured using a metric known as “level of service,” or LOS. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of greenhouse gas (GHG) emissions, creation of multimodal networks, and promotion of a mix of land uses.

SB 743 requires the Governor’s Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to level of service for evaluating transportation impacts. The alternative criteria must promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses (OPR 2014). According to the legislative intent contained in SB 743, these changes to current practice were necessary to more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHG emissions.

General Plan and Mobility Element Law

California state law (Government Code Section 65032(b)) requires that a general plan include a circulation element that consists of “the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals... and other local public utilities and facilities, all correlated with the land use element of the [general] plan.”

California Coastal Act

The California Coastal Act (Public Resources Code, Division 20, sections 30000 et seq., was adopted by the California legislature on January 1, 1977. The Coastal Act established the following goals for the coastal zone affecting land use:

- a. Protect, maintain and, where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.
- b. Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the State.
- c. Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.
- d. Assure priority for coastal-dependent and coastal-related development over other development on the coast.
- e. Encourage State and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone (California Coastal Act, Section 30001.5).

The Coastal Act also established the California Coastal Commission (CCC), which has land use authority in the coastal zone.

3.4.2.3 Regional

San Diego Association of Governments

The San Diego Association of Governments (SANDAG) is comprised of elected representatives of the 18 cities in San Diego County and the County itself. SANDAG serves as the forum for regional decision-making and long-term transportation plans to meet future growth and community needs. SANDAG builds consensus, makes strategic plans, obtains/allocates resources, plans/engineers/builds public transportation, and provides information on a broad range of topics pertinent to the region's quality of life.

SANDAG Regional Transportation Improvement Program

The Regional Transportation Improvement Program (RTIP) is also a multiyear program that includes all proposed major highway, arterial, transit, and non-motorized projects in the region. The 2014 RTIP was adopted in September 2014 by the SANDAG Board of Directors and received federal approval in December 2014, and eight RTIP amendments have been approved as of December 2, 2015.

San Diego Forward: The Regional Plan (San Diego Forward) December 2021

San Diego Forward was adopted by the SANDAG Board of Directors on December 10, 2021. San Diego Forward combines and updates the region's two big-picture planning documents: the Regional Comprehensive Plan and the RTP/SCS. The intent of SB 375 is to use the RTP/SCS to integrate regional land use, RHNA, environmental, and transportation planning to ensure efficient regional planning in the future that leads to reduced GHG emissions from land and transportation uses. Based on the

principles of sustainability and smart growth, the Regional Plan develops an overarching strategy for future growth in the County.

In 2023, an amendment to the 2021 Region Plan was adopted to remove the regional road usage charge. The amendment updated the financial strategies necessary to demonstrate sufficient revenues to pay for the planned transportation improvements. The amendment also documents federal Air Quality Planning and Transportation Conformity and evaluates consistency with state targets to reduce GHG emissions consistent with Senate Bill 375 (SB 375) (SANDAG, 2023).

San Diego Forward provides a big-picture vision for the region's growth through the year 2050. The Regional Plan reflects a strategy for a more sustainable future, which includes investing in a transportation network that will provide people more travel choices, protect the environment, create healthy communities, and stimulate economic growth (SANDAG 2015c). The goals of the Regional Plan are to provide innovative mobility choices and planning to support a sustainable and healthy region, a vibrant economy, and an outstanding quality of life for all.

To meet these broad goals, the Regional Plan offers six general categories of policy objectives with two to three specific policy objectives therein:

Habitat and Open Space Preservation

- Focus growth in areas that are already urbanized, allowing the region to set aside and restore more open space in our less developed areas.
- Protect and restore our region's urban canyons, coastlines, beaches, and water resources.

Regional Economic Prosperity

- Invest in transportation projects that provide access for all communities to a variety of jobs with competitive wages.
- Build infrastructure that makes the movement of freight in our community more efficient and environmentally friendly.

Environmental Stewardship

- Make transportation investments that result in cleaner air, environmental protection, conservation, efficiency, and sustainable living.
- Support energy programs that promote sustainability.

Mobility Choices

- Provide safe, secure, healthy, affordable, and convenient travel choices between the places where people live, work, and play.
- Take advantage of new technologies to make the transportation system more efficient and accessible.

Partnerships/Collaboration

- Collaborate with Native American tribes, Mexico, military bases, neighboring counties, infrastructure providers, the private sector, and local communities to design a transportation system that connects to the megaregion and national network, works for everyone, and fosters a high quality of life for all.
- As we plan for our region, recognize the vital economic, environmental, cultural, and community linkages between the San Diego region and Baja California.

Healthy and Complete Communities

- Create great places for everyone to live, work, and play.
- Connect communities through a variety of transportation choices that promote healthy lifestyles, including walking and biking.
- Increase the supply and variety of housing types—affordable for people of all ages and income levels in areas with frequent transit service and with access to a variety of services.

3.4.2.4 Local

Local Coastal Program

The Coastal Act established the CCC, which has land use authority in the coastal zone. The California Coastal Act requires each coastal city to adopt a Local Coastal Program (LCP) to protect coastal resources and to manage coastal development. The LCP is a basic planning tool to guide development in the Coastal Zone. While each LCP reflects unique characteristics of individual local coastal communities, both regional and State interests and concerns must also be addressed in conformity with Coastal Act goals and policies.

Approximately two-thirds of the City of Encinitas is located within the Coastal Zone and falls under CCC jurisdiction. In compliance with the Coastal Act, the City has adopted and implemented an LCP. The LCP is included in the General Plan and consists of a coastal land use plan and supporting ordinances that are incorporated into each of the General Plan elements. The goals of the LCP are to protect, maintain, and enhance the Coastal Zone environment; ensure balanced utilization and conservation; maximize public access to and along the coast; prioritize coastal-dependent and related development; and encourage coordinated State and local initiatives to implement beneficial programs and other educational uses.

An LCP has two parts: a Land Use Plan (LUP) and an Implementation Plan (IP). The City's LUP is combined with the General Plan and Land Use Policy Map. Those portions of the adopted General Plan that comprise the LUP are indicated by back shaded text and span across most elements. Under Section 30500.1 of the Coastal Act, no LCP shall be required to include housing policies and programs. For that reason, the City's currently adopted Housing Element is not included in the current LCP; and an update to the Housing Element portion of the General Plan will not trigger LCP amendment. However, the implementation of those housing policies and programs, as well as Project-conforming amendments, would require CCC certification through LCP amendment. The IP portion of the City's LCP is composed of the various portions of the Municipal Code (Titles 24 and 30, Chapters 23.08 and 23.24), the various Specific Plans (Downtown Encinitas, North 101 Corridor, Encinitas Ranch), and the zoning map.

Under the City's LCP, a coastal development permit is required for all development within the City's Coastal Zone, except for the following:

- Improvements to an existing structure or a public works facility.
- Repair and maintenance activities to existing structures or facilities that do not result in an addition to, or enlargement or expansion of, the structures or facilities.
- The installation, testing, and placement in service or the replacement of any necessary utility connection between an existing service facility and any development which has been approved under the California Coastal Act.
- The replacement of any structure other than a public works facility destroyed by a disaster.
- Temporary uses or events.
- Signs which are exempted from provisions of the Municipal Code.

Development within the Coastal Zone may not commence until a coastal development permit has been issued by either the CCC or a local government that has a certified LCP. After certification of an LCP, coastal development permit authority is generally delegated to the local government, with some exceptions.

Table 3.4-1 provides the LCP's relevant land use goals and policies.

Table 3.4-1 Goals and Policies Related to Land Use	
Goal/Policy	Description
Policy 2.17	The County shall undertake planning efforts that promote infill and redevelopment of uses that accommodate walking and biking within communities.
Policy 2.18	The County will support increased public transportation service and funding in relation to the County's Coastal Zone within the unincorporated County boundary.
Policy 2.21	Safely separate pedestrian, bicycle and vehicular traffic when these modes share rights-of-way, as development occurs and improvements are implemented.
Policy 2.23	The County will support the development of additional bicycle facilities in the County's Coastal Zone, with the construction of bicycle routes on El Camino Real from the San Diego City Boundary to Linea Del Cielo, and on Linea Del Cielo Drive from San Valley Road to El Camino Real.
Policy 2.27	The provision of bicycle and other Complete Streets improvements on County Mobility Element roads within the Coastal Zone shall be maximized to provide a safe and continuous bicycle and pedestrian network in rural areas that can be used for recreation or transportation purposes, while retaining rural character.
City of Encinitas Local Coastal Program: Land Use	

City of Encinitas General Plan

The City of Encinitas' General Plan serves as a blueprint for physical development and contains goals and policies which aim to maintain the City's seaside community character, provide a balance of land uses and services, and to preserve environmentally sensitive areas. All zoning ordinances, specific

plans, individual projects, and land use regulations and decisions within the jurisdiction must be consistent with the General Plan.

In June 2013, the voters in the City approved Proposition A, an initiative called the Encinitas Right to Vote Amendment placed on the ballot by local citizens. Codified in the Encinitas Municipal Code 30.00.010 as the Community Character and Voters' Rights Initiative, Proposition A requires future voter approval for any major amendments to planning policy documents by the Planning Commission and City Council, including the Land Use Element, Land Use Policy Maps of the General Plan, Zoning Code, Zoning Map, any specific plan, and development agreements. Proposition A specifically requires an affirmative majority vote of the City's voters to allow for any redesignation of land, as follows:

- The allowable maximum density of any property designated for residential use to be increased. Property designated/zoned for nonresidential use to be redesignated/rezoned to allow residential uses.
- Property designated/zoned for residential use to be redesignated/rezoned for any nonresidential use.
- Property designated/zoned for nonresidential use shall not be redesignated/rezoned to allow more nonresidential uses or greater intensity of use.

Exceptions to the requirements of City voter approval for specified General Plan and land use map amendments include minor adjustments in land use boundaries, minor changes to land use designations for corrections, and any change in any land use designation to ecological resource/open space/parks.

Land Use Element

The Land Use Element of the General Plan serves as a guide for future development in the City of Encinitas. The Land Use Element affects several key issues that are addressed in the remaining elements. For example, land use policies have a direct bearing on the local system of streets and roadways, which is planned for in the Circulation Element. The General Plan's Land Use Element goals and policies related to land use and mobility that apply to the Project are described below in **Table 3.4-2**.

Table 3.4-2 Goals and Policies Related to Land Use and Mobility	
City of Encinitas General Plan Land Use Element	
Policy 7.5	A streetscape specific plan(s) 101 for the Hwy corridor and E1 Camino Real corridor shall be prepared (Coastal Act/ 30251)
Policy 7.8	The 101 corridor from the north City boundary to Encinitas Boulevard is designated a Specific Plan area. Development shall be allowed prior to the completion of the Specific Plan.
Policy 9.5	Discourage development that would infringe upon scenic views and vistas within the I-5 corridor.
Policy 9.6	Where it is necessary to construct retaining or noise-attenuating walls along the I-5 corridor, they should be constructed with natural-appearing materials and generously landscaped with vines, trees and shrubbery.
Source: City of Encinitas General Plan	

Noise Element

The City has established Noise Land Use Compatibility Guidelines in its adopted General Plan Noise Element. These guidelines identify compatible exterior noise levels for various land use types. **Table 3.4-3** shows the City Exterior Noise Limits. The accompanying discussion set forth the existing criteria for siting new development in the City. Any project which would be located in a “normally unacceptable” noise exposure area, based on the Land Use Compatibility Guidelines, shall require an acoustical analysis. Noise mitigation in the future shall be incorporated in the project as needed.

Table 3.4-3 City of Encinitas Exterior Noise Limits – Adopted Noise Element	
Policy 1.1:	Review actions or projects that may have noise generation potential to determine what impact they may have on existing land uses. If a project would cause an increase in traffic noise levels, the policy of the City of Encinitas is to accept an increase up to an Ldn of 55 dB in outdoor residential use areas without mitigation. If a project would increase the traffic noise level by more than 5 dB and the resulting Ldn would be over 55 dB, then mitigation measures must be evaluated. If the project, or action, would increase traffic noise levels by 3 dB or more and the resulting Ldn would exceed 60 dB in outdoor use areas in residential development, noise mitigation must be similarly evaluated. The impact of non-transportation projects must generally be evaluated on a case-by-case basis. The following guidelines will aid in evaluating the impacts of commercial and industrial projects.
Policy 1.4	The City will limit truck traffic in residential and commercial areas to designated truck routes. Limit construction, delivery, and through truck traffic to designated routes. Distribute maps of approved truck routes to City traffic officers.
Policy 1.6	Include noise mitigation measures in the design of new roadway projects recognizing that driveways, street openings, and other existing site conditions make noise mitigation impossible.

City of Encinitas Specific Plans

The City has adopted the following specific plans:

- Downtown Encinitas Specific Plan (Adopted February 9, 1994)
- Encinitas Ranch Specific Plan (Adopted September 28, 1994)
- North 101 Corridor Specific Plan (Adopted May 21, 1997)
- Cardiff-by-the-Sea Specific Plan (Adopted July 21, 2010) – approved by the Coastal Commission in 2012
- Home Depot Specific Plan (Adopted September 22, 1993)
- El Camino Real Specific Plan (Adopted August 15, 2024)

The City anticipates that much of its new residential growth will occur in these specific plan areas, especially as mixed-use developments.

Downtown Encinitas Specific Plan

The Downtown Encinitas Specific Plan area consists of approximately 198.6 acres located within the community of Old Encinitas. The area is bound by the Pacific Ocean to the west, B Street to the north, Cornish Drive to the east, and K Street to the south. The purpose of this Specific Plan was to address the

unique aspects, problems, and opportunities of the Downtown Encinitas area, as well as to maintain its identity, community character, and scale while fostering rehabilitation and successful economic restructuring.

The Downtown Encinitas Specific Plan outlines strategies for increasing mobility potential in the Specific Plan area. Relevant land use and circulation goals and objectives contained within the text of the Downtown Encinitas Specific Plan are listed in **Table 3.4-4**.

Table 3.4-4 Downtown Encinitas Specific Plan 1994 (2010)	
Land Use Goals and Objectives	
Goal 1	Maintain the small scale and beach town character of the Downtown Encinitas specific plan area.
Goal 4	Identify under-utilized land and propose potential land uses
4.1	Change the zoning of the property designated as limited visitor-serving commercial located at 112 C Street and 371 Second Street to a mixed-use zone that would allow more development flexibility of the property
Goal 6	Provide for mixed-use land opportunities in the specific plan area
6.1	Rezone First Street to allow mixed-use development which would enable properties to develop as either commercial or a mix of primarily commercial with secondary residential uses.
6.2	Rezone portions of Second Street to allow mixed use development which would enable properties to develop as residential, commercial, office professional, or a mix of these uses.
Goal 7	Maintain and enhance a pedestrian-oriented environment and economically viable downtown by limiting ground floor uses along the First Street Corridor (S. Coast Hwy 101) to pedestrian oriented uses only.
7.3	Pedestrian activity at the street level should be strongly encouraged to create and maintain a compact, uninterrupted walking experience that represents a unique, attractive, and memorable destination for residents and visitors.
Circulation Goals and Objectives	
Goal 1	Promote a pedestrian oriented circulation system in the specific plan area.
Policy 1.3	Minimize conflicts between pedestrians and other transportation modes, and protect the pedestrian orientation of the plan area.
Goal 2	Provide for safer pedestrian and bicycle circulation.
Goal 3	Promote mass transit and multi-transportation systems and minimize impacts of these systems on the community.
Policy 3.1	Encourage a local motor trolley system which services the community, visitors, and the commuter rail station.
Policy 3.2	Encourage and coordinate with future public transportation systems that are consistent with community character.
Goal 4	Manage traffic flow along First Street.
Policy 4.1	Analyze the traffic circulation patterns and intersection levels of service within the plan area relative to the following alternatives:
Policy 4.2	Identify street and alley improvements that will provide efficient and safe movement of people and goods within the downtown Encinitas area.

Encinitas Ranch Specific Plan

The Encinitas Ranch Specific Plan is designed to allow agricultural uses to continue operating as a viable business while permitting a mix of residential, commercial, mixed use, recreation, and open space uses to develop on the remaining portions of the ranch. The Encinitas Ranch Specific Plan provides residential, commercial, and mixed-use development, in addition to a substantial amount of natural open space, recreational area, and agricultural uses on a total of 852.8 acres, which includes the 29.8-acre Magdalena Ecke Park.

The area of densest development within Encinitas Ranch is in the Green Valley Planning Area, adjacent to El Camino Real. This area includes a 73.8-acre Regional Commercial Center (straddling Leucadia Boulevard) and approximately 24.8 acres of multifamily housing including townhomes, condominiums and apartments in proximity to the planned commercial and office uses. Residential densities of up to 25 dwelling units per acre are permitted for free-standing residential structures.

Besides the mixed-use development in Green Valley, there is a total of 13 acres of mixed-use development planned on the west side of Saxony Road in the southwestern portion of the project site. The West Saxony Planning Area is designed with the ability to contain community-serving uses (theater, museum). If developments with these uses are not built, then the area would develop with a mix of traditional residential and office uses. The Encinitas Ranch project also includes single-family residential development. Single-family dwelling units will be constructed in the Quail Hollow East, North Mesa, South Mesa, and Sidonia East planning areas.

Relevant goals and objectives contained within the text of the Encinitas Ranch Specific Plan are listed in **Table 3.4-5**.

Table 3.4-5 Encinitas Ranch Specific Plan 1994 (2005)	
Land Use Goals and Objectives	
Policy 1.15	Commercial and industrial uses shall be required to provide easy and safe pedestrian, bicycle and handicapped access. (Coastal Act/30250)
Policy 3.5	Commercial areas/zones shall be designated to avoid undue concentrations of commercial development which would increase traffic to levels beyond the current and projected capability of the City's services and facilities to deal with the increased traffic.
Circulation Goals and Objectives	
Goal 1	Encinitas should have a transportation system that is safe, convenient and efficient, and sensitive to and compatible with surrounding community character. (Coastal Act/30252)
Policy 1.1	Ensure that the arterial circulation system provides adequate connections across the freeway for convenient circulation and rapid emergency access.
Policy 1.4	Require, where feasible, interconnecting off-street pedestrian and vehicular circulation between adjacent commercial and office land uses. This policy should be required along major transportation corridors to minimize traffic conflicts associated with pedestrian and vehicular movement to and from these properties.
Policy 1.8	Locate major roads and prime arterials where they will bypass rather than divide residential neighborhoods.
Policy 1.10	Encourage the design of roads and traffic controls to optimize safe traffic flow by minimizing turning, curb parking, uncontrolled access, and frequent stops.

Table 3.4-5 Encinitas Ranch Specific Plan 1994 (2005)

Policy 1.11	Construct roads following the natural contours to minimize cuts and fills; avoid grid street patterns where feasible.
Policy 1.15	The City will actively support an integrated transportation program that encourages and provides for mass-transit, bicycle transportation, pedestrians, equestrians, and carpooling. (Coastal Act/30252)
Policy 1.18:	Standards shall be established and implemented to provide for a comprehensive system of traffic control devices and signing, based on sound traffic engineering principles, to assure traffic safety and preservation of community character.

North 101 Corridor Specific Plan

The North 101 Corridor planning area consists of approximately 231 acres within the communities of Leucadia and Old Encinitas. The specific plan allocates 83.1 acres of residential-only zoning, which includes 10.4 acres of Residential 3 (N-R3), 28.4 acres of Residential 8 (N-R8), 1.4 acres of Residential 11 (N-R11), 4.9 acres of Residential 15 (NR15), 15.8 acres of Residential 20 (N-R20), 10.6 acres of Residential 25 (N-R25), and 11.6 acres of Mobile Home Park (NMHP).

The specific plan has also expanded previous commercial zoning in the North Highway 101 Corridor Specific Plan area to allow residential use. There are five distinct commercial mixed-use zoning classifications in the Plan area. The N-CM-1, N-CM-2, and N-CM-3 zones provide for stand-alone commercial or commercial and residential uses at a maximum density of 25.0 dwelling units per net acre on the same property or in the same structure. The N-CRM-1 zone provides for a variety of development opportunities including standalone commercial, stand-alone residential (at a maximum density of 25 dwelling units per net acre), and mixed use (at a maximum density of 25 dwelling units per net acre). The N-CRM-2 zone provides for the same development opportunities as the N-CRM-1 zone except that the maximum density is set at 15 dwelling units per net acre. Relevant goals and objectives contained within the text of the North 101 Corridor Specific Plan are listed in **Table 3.4-6**.

Table 3.4-6 North 101 Corridor Specific Plan 1997 (2005)

Land Use Goals and Objectives	
Goal C	Provide for flexible land use opportunities such as mixed-use.
Goal E	Identify land use opportunities for under-utilized land.
Goal H	Enhance the overall image and streetscape in order to attract more visitors and shoppers to the corridor.
Goal I	Encourage land use buffers between incompatible uses such as commercial frontage adjacent to residential development.
Circulation Goals and Objectives	
Goal A	Provide for safe pedestrian circulation.
Goal B	Improve parking opportunities.
Goal C	Improve vehicular traffic circulation.
Goal D	Promote and encourage the use of public transportation.

Cardiff-by-the-Sea Specific Plan

The Cardiff-by-the-Sea Specific Plan focuses on a small but highly visible and valued portion of the Cardiff community. Generally considered the “business district” or sometimes “Downtown Cardiff,” the area is principally a mix of low-rise retail, office, institutional, and residential uses. Boundaries of the Cardiff-by-the-Sea Specific Plan are irregular but generally include properties between the west side of San Elijo Avenue and the west side of the alley between Newcastle Avenue and Manchester Avenue; and from the south side of Mozart Avenue to the north side of Orinda Drive.

Within the Cardiff-by-the-Sea Specific Plan area are four separate planning areas, two of which allow residential uses of up to 11 dwelling units per acre. Planning Area 1 is roughly bound by Mozart Avenue on the north, Montgomery Avenue on the east, Birmingham Drive on the south, and San Elijo Avenue on the west. Single- and multi-family housing, professional and administrative offices, and restaurants define this planning area. This planning area functions as a transition between the residential area to the south and the commercial area to the north. More than half the area is developed residentially. Relevant goals and objectives contained within the text of the Cardiff-by-the-Sea Specific Plan are listed in **Table 3.4-7**.

Table 3.4-7 Cardiff-by-the-Sea Specific Plan 2010 (2013)	
Policy 2.6	Define rights-of-way and typical street sections widths along all streets.
Goal 4	Enhance pedestrian access and orientation.
Policy 4.2	Create a network of pedestrian routes that link parks, public spaces, public facilities, and landmarks in direct and indirect ways.
Policy 4.4	Develop a streetscape program that incorporates the beach town feel to include pedestrian paths, landscaping, and street rights-of-way, all of which should strengthen pedestrian orientation and use.
Policy 4.5	Require that all north-south and east-west streets have pedestrian paths so that pedestrians can move freely and safely through the Specific Plan area.
Policy 4.7	Create intersection enhancements to create pedestrian crossings to enhance safety, slow traffic, add visual interest, and signify entry into the specific plan area.
Policy 4.8	Enhance and increase safety for pedestrians crossing the railroad tracks.
Goal 5	Incorporate alleys with the pedestrian/vehicular network.
Policy 5.1	Support the use of alleyways as a linkage element within the Specific Plan area.

The City of Encinitas Municipal Code

Volume II, Titles 20-30 of the City’s Municipal Code, contains the primary zoning implementation mechanisms for the Land Use Element. The policies contained in the zoning ordinances classify and regulate the uses of land and structures within the City, consistent with the General Plan. The Zoning Code (Chapter 30) is adopted to protect and to promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses in the City. The City’s Zoning Code also regulates the physical development of land by imposing minimum standards on lot size, lot width and depth, setbacks, as well as by placing maximum limits on lot coverage and floor area ratio. These development standards are intended to control for unacceptable mass and bulk, ensure proper scale of development, provide minimum light, air, and open space for every lot, and minimize the potential for spillover and edge effects between uses. Citywide, the standards vary among zoning categories and are

adjusted for the specific plan areas. The City's determination of realistic site capacity reflects these standards.

Coastal Development Permit

For all development within the City's Coastal Zone, the reviewing authority for the coastal development permit varies depending on the type of application submitted. Furthermore, specific findings may be required for decisions on coastal development permits that include the following:

- Project effects on demand for access and recreation
- Shoreline processes
- Historic public use
- Physical obstructions
- Other adverse impacts on access and recreation

City of Encinitas Design Guidelines

Adopted in 2005 and amended in January 2022, the City's current Design Guidelines include provisions that are applicable to all development subject to design review (as identified in the Municipal Code). Chapter 4 of the Design Guidelines provides guiding principles to ensure the streetscape remains consistent to the community, as well as supports the overall goals of the City.

3.4.3 Significance Determination Thresholds

Consistent with Appendix G of the CEQA Guidelines, impacts related to land use would be significant if the Project would:

1. Physically divide an established community; or
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.4.4 Issue 1: Physically divide an established community

3.4.4.1 Impact

The MEU is a policy document and serves as an implementation framework for future transportation projects. The overall objective of the MEU is to improve the safety, interconnectivity, accessibility, and comfort of all multimodal corridors throughout the City. The MEU provides an update to the City's existing multimodal circulation network, including cross sections and street classifications. The MEU does not propose to expand, extend, or change the width of any existing roadways within the City.

Furthermore, the City is predominately urbanized and largely developed with residential and commercial uses. Other uses include industrial, offices, health care, schools, recreation and open space, and transportation facilities. Implementation of the MEU and future proposed projects are anticipated to improve connectivity without physically dividing an established community.

As subsequent projects are proposed, a design review would be required to ensure a proposed project would not physically divide an established community. Therefore, implementation of the Project would not result in a community division, and impacts would be less than significant.

3.4.4.2 Significance of Impacts

The Project would not physically divide an established community; therefore, impacts would be less than significant, and no mitigation is required.

3.4.4.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.4.5 Issue 2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect

3.4.5.1 Impact

State Plans and Policies

As detailed in Chapter 2, Project Description, the Project includes an update to the Mobility Element of the City's General Plan. Adoption of the Mobility Element would ensure the City's General Plan is consistent with recently adopted regulations that require mobility elements to include new policy and analysis per Government Code Section 65032(b). As described in the Regulatory Framework section above, applicable State plans and policies include the Complete Streets Act (AB 1358) and Senate Bill 743. The MEU would be consistent with the Complete Streets Act and SB 743 by creating a set of goals and policies aimed to prioritize multimodal mobility options, including bicycling and walking. The MEU also outlines a set of multimodal Complete Streets design standards that align with both of these State plans. The MEU would be consistent with SB 743 specifically by identifying a goal to reduce automobile vehicle miles traveled by providing time-competitive alternatives to automobile travel, including public transportation, bicycling, walking, micromobility, microtransit, and on-demand mobility services. For more detail on consistency with transportation related state plans, please refer to Section 3.6, Transportation and Circulation.

Regional Plans and Policies

San Diego Forward

The San Diego Forward Plan (Regional Plan) reflects a strategy for a more sustainable future, which includes investing in a transportation network that will provide more travel choices, protect the environment, create healthy communities, and stimulate economic growth. Overall, the MEU reflects this strategy by providing a plan to accommodate anticipated future growth in the City with an emphasis on multimodal improvements and incorporating key principals for smart growth.

The MEU identifies policies that align with the vision of the Regional Plan, including the following:

- Policy ME 4.8: Regional Mobility Planning - Collaborate with federal, State, regional, and local agencies to help plan and implement a regional, multimodal mobility system that is accessible to all potential users and achieves state and regional goals. Share information regarding mobility plans and studies with other agencies to support regional planning and coordination.
- Policy ME 4.9: Regional Connectivity for Pedestrian, Bicycle and Micromobility Modes - Collaborate with regional and State agencies to plan and develop multijurisdictional facilities for pedestrian, bicycle, and micromobility modes (such as the Coastal Rail Trail, California Coastal Trail, and Inland Rail Trail) and their associated connections to local facilities. Refer to the Active Transportation Plan and other relevant mobility plans for detailed guidance.
- Policy ME 4.10: Regional Connectivity for Intelligent Transportation Systems (ITS) - Collaborate with state, regional, and other agencies to conduct ITS studies and seek funding to implement ITS improvements to increase the safety and efficiency of the mobility system.
- Policy ME 4.11: Regional Connectivity for Transit Priority - Collaborate with public transit providers and adjacent jurisdictions to implement transit priority measures on existing and planned bus corridors.

The Project incorporates policies from the Regional Plan and supports the Regional Plan's vision towards a sustainable future. Therefore, the Project is consistent with the Regional Plan, and impacts would be less than significant.

Local Plans

Local Coastal Program

As previously described, two-thirds of the City is within the Coastal Zone and under CCC jurisdiction. Several policies identified in the MEU are provided or enhanced from the City's LCP. Specifically, Policy ME 4.5 was developed to support the LCP and prioritizes access to shoreline recreation areas among all models of travel. Additionally, the policy requires that any modification to major coastal access be accompanied by public access benefit enhancements promoting multimodal access.

Policies ME 2.3 and 2.4 incorporates requirements of the LCP, which states that coordination and cooperation with State and regional agencies is required to ensure that lateral and vertical beach access is protected and enhanced. Furthermore, the policies outline how coastal access can be enhanced, encouraged, and maintained. Policy ME 2.5 provides feasibility measures to address parking needs in high-demand locations, including coastal and recreational areas.

The Project does not propose any transportation improvements that restricts or impedes access to the coastline. Future development projects within CCC jurisdiction would be required to be consistent with the MEU and LCP policies, as well as obtain a coastal development permit, as applicable. Therefore, the Project would be consistent with the LCP, and impacts would be less than significant.

City of Encinitas General Plan

As set forth by State law, the General Plan serves as the primary planning document for the City, and subordinate documents and plans would be updated to be consistent with the General Plan. Overall, the Mobility Element is consistent with the General Plan as it focuses on a balanced and cohesive multimodal mobility network that accommodates anticipated future development under the General Plan. The MEU carries forward and enhances policies from the General Plan that would not remove or conflict with City plans, policies, or regulations. Below is a detailed discussion regarding the MEU's consistency with individual elements of the General Plan.

Land Use and Housing Elements

The Land Use Element of the General Plan provides all land-use and zoning designations for the City. The goals and policies identified in the Land Use Element aim to establish a balanced and functional mix of development, provide guidance regarding new development, identify land use opportunities and constraints, and preserve valuable undeveloped portions of the City. The Housing Element of the General Plan identifies projected housing needs within the City and provides goals and policies to meet those needs. The Housing Element works cohesively with the Land Use Element in identifying the types, intensities, and distribution of land uses throughout the City. Reviews of the Land Use and Housing Elements were completed as part of the MEU. These General Plan elements were an important consideration when classifying the City's circulation network, as they inform the Mobility Element in determining what an effective and sustainable transportation network will look like.

The MEU aligns with the land use and zoning designations set forth in the General Plan and ensures residents and visitors can access key destinations by all modes of transportation, including bicycling, walking, public transport, and automobiles. Specifically, Policy 1.3 of the MEU addresses consistency with the Land Use and Housing Element by ensuring the mobility system accommodates planned growth including areas identified in the Land Use Element, Housing Element, and adopted specific plans.

Public Safety Element

The Public Safety Element identifies appropriate actions needed to respond to a crisis, and ways that hazards can be avoided through prudent planning. The MEU is consistent with the Public Safety Element of the General Plan by ensuring that emergency responders can move throughout the City efficiently. The MEU includes Policy ME 1.1, which ensures mobility decisions are consistent with the City's General Plan and other guiding documents, including the overarching vision to provide safe, accessible, and comfortable transportation for all modes of movement and all demographics.

As previously stated, the MEU does not propose to expand, extend, or change the width of any existing roadways within the City. Thereby, no changes to the circulation network that could result in additional congestion and an increased delay for emergency responders would occur. For more detail on how the MEU is consistent with the Public Safety Element, please refer to Section 3.6, Transportation and Circulation.

Resource Management Element

The Resource Management Element identifies goals and policies that are designed to preserve significant natural resources within the City, including cultural resources and clean air. The MEU is consistent with the Resource Management Element of the General Plan through incorporation of Goal

ME 6, which strives to balance mobility benefits with impacts to the environment and community. Furthermore, Policy ME 6.1 requires new development projects requiring discretionary approval to be reviewed in accordance with the Mobility Analysis Guidelines' supporting multimodal plans and standards, the Climate Action Plan, and the CEQA. Goal ME 6 is also supported by policies ME 6.2 through 6.5, which are intended to develop and maintain resilient and sustainable mobility systems and reduce GHG emissions, thereby creating a more reliable and healthier environment for City residents and visitors.

Recreation Element

The Recreation Element also addresses goals and policies related to the development of new facilities, preserving open space, sustainable coastal development, and recreational access, as well as broadening the range of services the City's recreational facets provide. The Mobility Element would ensure that residents and visitors to Encinitas are able to utilize the mobility network to access key destinations, including a variety of recreational resources.

As previously described, the City is located along six miles of coastline and the City's park system encompasses approximately 184 acres of open space, 46 acres of both developed and undeveloped parks, 48 acres of beaches, and 41 miles of trails. Providing safe, equitable, and convenient access to recreational opportunities is an overall goal throughout the MEU. The MEU identifies a network of trail facilities that are intended to encourage active transportation and to provide access to recreational facilities. In addition, Policies ME 2.3, 2.4, 3.6, 3.7, and 3.8 aim to create and maintain a mobility network that emphasizes access to key destinations, such as recreational facilities.

Noise Element

The Noise Element of the General Plan quantifies the community noise environment in terms of noise exposure contours. These contours serve as guidelines to ensure future development will be compatible with land use designations identified in the General Plan. These contours are relevant to MEU as traffic-related noise is one of the principal disturbances listed in the Noise Element. The MEU considers and is consistent with the General Plan land use designations, noise contours, and policies. Policy 6.3 of the MEU aims to "develop and maintain a sustainable mobility system that ... reduces the pollution, noise, and energy consumption associated with mobility activities."

Conclusion

For the reasons stated above, the Project would be consistent with all elements of the General Plan. Additionally, future development would be required to be consistent with all applicable policies, standards, and regulations—including those land use plans, policies, and regulations adopted to mitigate environmental effects by the City—and those adopted by agencies with jurisdiction over components of future projects. If there are any potential environmental impacts associated with conflicts with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, they would be less than significant.

3.4.5.2 Significance of Impacts

Implementation of the Project would be consistent with applicable State, local, and regional plans. Impacts would be less than significant.

3.4.5.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.4.5.4 Conclusion

The MEU provides an update to the City's existing multimodal circulation network, including cross sections and street classifications and not propose to expand, extend, or change the width of any existing roadways within the City. The Project would not physically divide an established community and implementation of the Project would be consistent with applicable State, local, and regional plans. Therefore, impacts would be less than significant.

3.5 Public Services and Facilities

This section analyzes the impacts of public services and facilities that could result from implementation of the Mobility Element Update (MEU; Project) to the General Plan of the City of Encinitas (City). The analysis is based on a collection of existing data, including the Public Service Element of the General Plan.

3.5.1 Existing Conditions

The City of Encinitas is a beach city in northern San Diego County. It is located approximately 25 miles north of the City of San Diego and 95 miles south of Los Angeles. The city incorporated five separate communities in 1986, including Cardiff-by-the-Sea, Leucadia, Old Encinitas, New Encinitas, and Olivenhain. The City of Encinitas has access to a variety of natural resources, including public beaches and State and county parks. Numerous beaches lie along the western coastal shoreline of the city, attracting surfers and surf contests year-round. The sections below provide a summary of public services and public facilities in the City.

3.5.1.1 Fire and Emergency Medical Services

The Encinitas Fire and Marine Safety Department (EFMD) provides a wide array of public safety services in the City. The EFMD has 70 full-time employees and five divisions: Fire Operations and Support Services, Fire Administration, Loss Prevention and Planning (Fire Prevention), Disaster Preparedness, and Marine Safety Services. These services include fire protection, emergency response, medical aid, fire prevention, disaster preparedness, search and rescue, lifeguard services and community education programs. The EFMD operates six Encinitas fire stations spanning approximately 20 square miles. In 2021, the EFMD responded to 6,143 incidents within City limits with an average response time of 5 minutes and 20 seconds. EFMD also manages the fire departments for the Cities of Del Mar and Solana Beach, covering approximately 25 square miles in 8 fire stations.

The San Dieguito Ambulance District, also known as County Service Area 17 (CSA-17), was formed by the County Board of Supervisors in 1969 to provide ambulance services to several cities in North County, including Encinitas. CSA-17 consists of Del Mar, Del Mar Heights, Solana Beach, Encinitas, Rancho Santa Fe, and portions of Elfin Forest. In 1992, the service area was redesigned as an Emergency Medical Services (EMS) district. The EMS district delivers pre-hospital medical care including emergency evaluation, sick and injury assessment, and rapid care and stabilization for transport to an emergency medical care facility. Ambulance service is provided through Medical Response stationed at Solana Beach Station 1, Encinitas Station 2, and Encinitas Station 5.

3.5.1.2 Police Services

The City contracts with the County of San Diego Sheriff's Department to provide police services. The Encinitas Sheriff's Station has approximately 113 staff members servicing nearly 60 square miles including the cities of Del Mar, Encinitas and Solana Beach, the unincorporated communities of Rancho Santa Fe, Del Dios, Camp Pendleton, and San Onofre. The station provides a wide range of municipal law enforcement services to the cities of Del Mar, Solana Beach, and Rancho Santa Fe, including helicopters, bomb/arson squad, special enforcement detail team, canine units, and modern crime lab facilities.

Divisions providing day-to-day law enforcement at the Encinitas Sheriff's Station include the following:

- **Patrol Division:** Patrol deputies are first responders, responding to crimes or emergencies in progress, calls for service. They conduct routine patrols and preliminary investigations and apprehend law violators.
- **Traffic Division:** Traffic deputies focus on vehicle code enforcement, traffic collision investigations, and traffic control. The California Highway Patrol is the agency responsible for traffic enforcement in unincorporated areas.
- **Investigative Unit:** This unit is responsible for investigating general crimes against people and property crimes. Follow-up investigations on specific crimes requiring specialized expertise may be conducted by the department's centralized units.
- **Narcotics Investigations:** Deputies respond to complaints originating from citizens who report suspicious activity and leads (including arrests) from patrol deputies. Investigators focus on crimes involving the sale, possession, and distribution of illicit drugs and cases involving seizures of property.
- **Community Oriented Policing and Problem Solving:** Deputies target issues that can negatively impact the quality of life for citizens. Deputies tailor their enforcement to address problems they are specifically working on, allowing them to develop multifaceted responses to complex issues.
- **Crime Prevention Unit:** This unit focuses on community outreach regarding crime prevention techniques, current trends, and prevention education.

In 2015, the Encinitas Station was renamed the North Coastal Sheriff's Station to better serve the northern coastal cities of Encinitas, Solana Beach, and Del Mar. The North Coastal Station also provides services to the surrounding unincorporated areas of Rancho Santa Fe and Fairbanks Ranch. Altogether the station provides public safety services to over 80,000 residents.

The Encinitas Unified School District (EUSD) consists of nine elementary schools, six of which are located within the jurisdictional boundary of the City. The nine elementary schools in EUSD feed into the secondary schools in the San Dieguito Union High School District, which serves all middle- and high-school students from the City. The Cardiff School District also services elementary school students.

3.5.1.3 Library Services

The County of San Diego operates 33 branches of libraries, two of which are within the City—the Cardiff branch and the Encinitas branch. These two branches provide computers, books, media, magazines, displays, programs, and events.

The Encinitas Library community room and computer lab is maintained by the City. Both libraries use their community rooms to provide a variety of free informative programs for visitors of all ages. The Cardiff branch was expanded in 2011 to include a children's area, a community room, and an exterior patio. The library was expanded from 5,997 to 6,884 square feet.

3.5.1.4 Recreation Facilities

The City's park system is composed of a variety of recreation amenities that provide opportunities for both passive and active recreation, including parks, beaches, open spaces, playgrounds, sports fields, a dog park, and community amenities such as the Encinitas Ranch Golf Course and the Encinitas Community and Senior Center.

The Parks and Recreation Department is responsible for a wide range of services for the City including the maintenance and repair of all parks, beaches, and trail facilities. The Parks and Recreation Department manages 10 miles of streetscapes, approximately 184 acres of open space, 46 acres of both developed and undeveloped parks, 48 acres of beaches, and 41 miles of trails. Encinitas' system of parks and open spaces is described in the following sections.

Mini-Parks

Mini-parks are small, specialized park facilities that are often designed to serve a specific group, such as seniors or young children. Mini-park amenities may include park benches or small play lots. Encinitas' mini-parks include the Leucadia Roadside, Mildred MacPherson, and Wiro Park. Encinitas' existing mini-parks do not have parking facilities.

The Encinitas General Plan identifies mini-parks as those up to one acre in size. Mini-parks are intended to serve residents living within approximately one-half mile of the park. The General Plan specifies that mini-parks should be located near higher-density residential development in urbanized areas, where the acquisition of larger park parcels is unlikely.

Neighborhood Parks

Neighborhood parks frequently include areas for active and passive recreational uses and include a variety of facilities such as play areas, picnic sites, and athletic fields. Encinitas' existing neighborhood parks are between approximately 2.5 and 4.5 acres and are intended to provide convenient access to residents living within 1 mile of the park. Encinitas' neighborhood parks include Hawk View, Leucadia Oaks, Cottonwood Creek, Las Verdes, Encinitas Viewpoint, Glen, Orpheus, Scott Valley and Sun Vista parks. Encinitas Viewpoint, Orpheus, and Sun Vista parks have off-leash dog hours on certain days of the week.

Community Parks

Community parks support both active and passive recreation and provide an array of facilities and amenities. Existing community parks in Encinitas are between 5 and 15 acres in size. These parks are often more highly developed than neighborhood parks and suited for intense recreational uses such as citywide events and league and community sports practice and competition. Encinitas community parks include Oakcrest Park and Cardiff, Ecke, and Leo Mullen Sports Parks.

Special Use Parks

Special use parks are developed for a specific type of use, as opposed to neighborhood or community parks that support multiple uses. Special use parks often serve the entire community and enjoy regular, intensive use. Special use facilities, such as golf courses, community centers, or sports complexes, are stand-alone recreation facilities (that is, not located within larger parks). Encinitas' special use parks include Encinitas Community Park, Encinitas Ranch Golf Course, which is owned by the City and

privately operated and maintained, Little Oaks Equestrian Park in Olivenhain, Mountain Vista Trail/off-leash dog area, and the Encinitas Community and Senior Center at Oak Crest Park.

The Encinitas Community and Senior Center is an approximately 39,000-square-foot building that includes a banquet hall, kitchen, gymnasium/auditorium, and various activity and meeting rooms that support a range of activities for people of all ages. Classes and activities include tiny tot arts and crafts, computer classes for seniors, dance lessons, competitive sports leagues, and daily open gym hours for youth, adults, and seniors.

City Beaches

The City of Encinitas owns or maintains a number of beaches, beach access areas, and related facilities. Beaches that are leased from California State Parks and then operated and maintained by the City include Beacon's, Grandview, and Moonlight Beaches. The City recently renewed its agreement with the State to lease and maintain these beaches through 2030. Other beaches in Encinitas include San Elijo and Cardiff State Beaches, which are operated and maintained by the State.

Open Space

The City owns and/or maintains approximately 81.52 acres of open space land. Open space areas include Indian Head Canyon and properties along Saxony Drive. Some areas have habitat value or have the potential to be managed for the benefit of wildlife. However, open space areas are used primarily for passive recreation and are currently managed to minimize fire hazards and the spread of invasive vegetative species.

Regional Parks and Beaches

Regional parks and beaches are developed parks, beaches, and natural open spaces that serve City residents, surrounding communities, and visitors to the greater San Diego region. Regional parks and beaches are owned or managed by entities other than the City of Encinitas, including California State Parks, San Diego County, and private landholders. The sizes of regional parks vary, as do their locations relative to major population centers. Regional parks and beaches in Encinitas include the San Elijo Lagoon Ecological Preserve; the San Diego Botanic Garden; San Elijo, Cardiff, and Seaside State Beaches; Magdalena Ecke County Park; and the Manchester Preserve, which is owned and managed as a habitat mitigation bank by the Center for Natural Lands Management.

The San Elijo Lagoon Ecological Preserve is one of the few remaining wetlands in San Diego County. The preserve is an example of a natural area that is largely undeveloped and managed primarily for its natural resource value, and secondarily for recreational use. San Diego County maintains 5 miles of trails within the Preserve and a well-visited nature center located on the north side of the lagoon in Cardiff-by-the-Sea.

Recreational Trails

Greenbelts and trails are linear open spaces that provide trail corridors and/or green buffers within neighborhoods and communities. Greenbelts and trails typically follow features such as streets, abandoned railroad rights-of-way, power lines, or waterways. These corridors often contain hard- or soft-surfaced trails, along with amenities such as trailheads viewpoints, seating areas, and interpretive displays. They provide public access to natural features, preserve open space, and can support trail-

related recreation and transportation. These corridors may serve specific neighborhoods, the entire City, and the North County region.

The City currently has 40.5 miles of developed trails and plans to develop an additional 40 miles of trails and pedestrian connections throughout the City. City trails provide pedestrian, bicycle, and/or equestrian access to undeveloped open spaces such as Indian Head Canyon and Manchester Preserve. The Olivenhain community enjoys an extensive network of trails relative to other parts of the City. The San Elijo Lagoon Ecological Preserve includes approximately 5 miles of trails managed by the County of San Diego, which serve City residents and visitors. In addition, Encinitas residents have access to Rancho Santa Fe's well-developed trail system.

3.5.2 Regulatory Framework

3.5.2.1 State

California Fire and Building Code

The California Fire and Building Codes address general and specialized fire safety requirements for buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to protect and assist first responders, and industrial processes.

Senate Bill 50

Senate Bill (SB) 50 created various methods of generating revenue to pay for school construction and remodeling. These methods consist of State school bond funds, local school bonds, and developer fees. There are three levels of developer fees: Level I, Level II, and Level III. Level I fees are set by law but can be adjusted for inflation. Level II fees require that developers pay for the entire local share of construction costs, which is 50% of total construction costs. Level II fees may be imposed by a school district on a yearly basis, but only if certain conditions are met. Level III fees require developers to pay 100% of construction costs and are imposed if the State is no longer allocating bond funds. SB 50 stipulates that if a school district conducts a School Facilities Needs Analysis and meets certain other requirements, it may impose a statutory developer fee that may be significantly higher than the previously permitted.

3.5.2.2 Local

General Plan/ Local Coastal Program

Pertinent General Plan goals and policies related to the provision of adequate public services are listed below in **Table 3.5-1**.

Table 3.5-1 City of Encinitas General Plan Goals and Policies Related to Public Services	
Goal/Policy	Description
Safety Element	
Goal S-1A:	Promote a culture of emergency preparedness in Encinitas through comprehensive emergency management and planning.
Policy S-1.1:	The public safety system shall provide standards and levels of service guidelines that assure quality of life and protection of life and property from preventable losses.
Policy S-1.3:	Coordinate citywide emergency management and disaster planning and response through the integration of City departments into the preparedness and decision-making (EOP reference).
Goal S-1B:	A community that can easily evacuate.
Policy S-1.7:	Ensure adequate evacuation capacity and infrastructure is available for existing and new development.
Policy S-4.11:	Maintain access (ingress and egress) for fire apparatus vehicles along public streets in very high fire hazard severity zones for emergency equipment and evacuation.
Policy S-4.24:	Require and maintain adequate setbacks, easements, and accesses, to ensure that emergency services can function.
Recreation Element	
Policy 1.14:	The City shall attempt to acquire the Santa Fe railroad right-of-way, should it become available, for the development of recreational facilities and landscaping as well as transportation and other public needs.
Policy 5.1:	The City recognizes Cardiff Beach State Park, San Elijo Beach State Park, South Carlsbad Beach State Park and Moonlight Beach (future City) State Park, as the major visitor destination beaches in the Encinitas area. The City will work with the State to upgrade and promote access to these State beaches, and will act to upgrade and promote access to Moonlight Beach, in order that they may receive an increased proportion of visitor uses. (Coastal Act/30214).
Land Use Element	
Policy 1.14:	The City will maintain and enhance the Hwy 101 commercial corridor by providing appropriate community-serving tourist-related and pedestrian-oriented uses. (Coastal Act/30250).
Policy 1.15:	Commercial and industrial uses shall be required to provide easy and safe pedestrian, bicycle, and handicap access. (Coastal Act/30250).

Municipal Code

Fire Prevention (Title 10)

The City adopted the 2012 International Fire Code and the 2013 California Fire Code as the Fire Code of the City of Encinitas (Municipal Code Section 10.04.020).

Building and Construction (Title 23)

The City has adopted a Fire Mitigation Fee (Municipal Code Section 23.92) as a means to implement the goals of the Public Safety Element of the City's General Plan. Specifically, fees are assessed and collected during the subdivision or building permit process to finance the cost of additional fire protection facilities or equipment necessitated by the new development (Municipal Code Section 23.92.010).

The fire mitigation fee shall be determined by the Fire Chief or their designated agent and satisfied by the applicant as a condition of approval of the development project. If the development is not in a new subdivision, the fee shall be paid by the applicant as a condition of the granting of a building permit for the proposed development.

In order to meet the specifications of the City's recreational space and facilities standards and to implement the goals and objectives of the Recreation Element of the General Plan, new development is required to offer land dedication or pay in-lieu fees and park improvement fees for park and recreation purposes. The combined dedication/in-lieu fee and park improvement fee is called the Parkland Acquisition and Improvement Fee (Municipal Code Section 23.98), which funds park programming needs.

The Parkland Acquisition and Improvement Fee shall be determined by the Director of Parks and Recreation or their designated agent and satisfied by the applicant as a condition of approval of the development project. If the development is not in a new subdivision, the fee shall be paid by the applicant as a condition of the granting of a building permit for the proposed development.

3.5.3 Significance Determination Thresholds

Consistent with Appendix G of the California Environmental Quality Act Guidelines, impacts related to public services would be significant if the Project would result in any of the following:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
 - a. Fire protection?
 - b. Police protection?
 - c. Schools?
 - d. Parks?
 - e. Other Public facilities?

3.5.4 Methodology

The impact analysis in the following subsections evaluates: (1) whether the Project would result in the need for substantial alterations or expansions to existing public services or facilities (e.g., new fire stations or parks) or the construction of new facilities; and (2) if the expansion or construction of new facilities necessitated by the Project would result in significant environmental impacts.

3.5.5 Issues 1a through 1e: Result in adverse physical impacts on the environment associated with the need for new public service facilities or the need for new or physically altered public facilities, the construction of which could cause significant environmental impacts and the provision of public services.

3.5.5.1 Impacts

The MEU is a policy document that sets a long-term vision for the City through the establishment of goals, multimodal networks, and supporting policies. It complements regional and State mobility plans and works with the other elements of the General Plan to plan for and accommodate the City's mobility needs into the future. This policy document does not induce growth, rather it accommodates and plans for anticipated growth projected in the General Plan. The MEU plans for future growth by identifying multimodal mobility network improvements that would improve access throughout the City. The MEU would not result in changes to the existing circulation network, such that the MEU would not impact or create delay in any emergency response times, necessitating the need for additional or altered facilities. Because the MEU would not induce growth or include the construction of new buildings, implementation of the Project would not result in an increase in demand for public service facilities, including fire or police protection, or expanded school or park facilities. Additionally, the MEU does not propose constructing nor necessitate the construction of new public service facilities.

Future projects implemented in accordance with this MEU must adhere to the General Plan policies and comply with applicable development regulations that are intended to address the demand for public services that result from development. For example, future development would be required to pay applicable Fire Mitigation Fees and Parkland Acquisition and Improvement Fees. As described in Section 3.5.2, fees are determined by the Fire Chief and the Director of Parks and Recreation, respectively, or their designated agent. These fees shall be paid by the applicant as a condition of the granting of a building permit for the Project. Furthermore, as the City's population increases and the need for new facilities are identified, any future construction of public facilities would be subject to a separate environmental review at the time design plans are available. Therefore, impacts would be less than significant.

3.5.5.2 Significance of Impacts

Implementation of the Project would be consistent with local and regional plans and policies. Impacts would be less than significant.

3.5.5.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.5.5.4 Conclusion

The Project would not result in changes to the existing circulation network, such that the Project would not impact or create delay in any emergency response times, necessitating the need for additional or altered facilities. Because the MEU would not induce growth or include the construction of new buildings, implementation of the Project would not result in an increase in demand for public

service facilities, including fire or police protection, or expanded school or park facilities. Additionally, the Project does not propose constructing nor necessitate the construction of new public service facilities. Impacts would be less than significant.

3.6 Transportation and Circulation

This section analyzes the potential for significant impacts related to transportation that could result from the implementation of the Mobility Element Update (MEU; Project). This section describes the existing transportation system within the Project area; characteristics of the Project area; and relevant federal, state, and local regulations and programs related to transportation. The analysis in this section is based on the Traffic Impact Analysis Report prepared by WSP for the City of Encinitas (City) General Plan Mobility Element Update (see Appendix E).

3.6.1 Existing Conditions

3.6.1.1 Street Network and Roadway Classifications

Streets and public rights-of-way comprise a large portion of the land in Encinitas, and their utilization has a tremendous influence on mobility, safety, economic development, and overall quality of life. A street typology defines a hierarchy of street types that incorporate not just a street's mobility function, but also its character and adjacent land uses and context. The typology provides a classification system that guides future land development, street improvements, and road design projects. **Table 3.6-1** lists the street types in Encinitas.

Table 3.6-2 provides additional details, listing all street types in Encinitas including their contextual settings (i.e., urban village, suburban, and rural). The table also specifies each street type's vehicular function, number of lanes, median treatment, and typical right-of-way width.

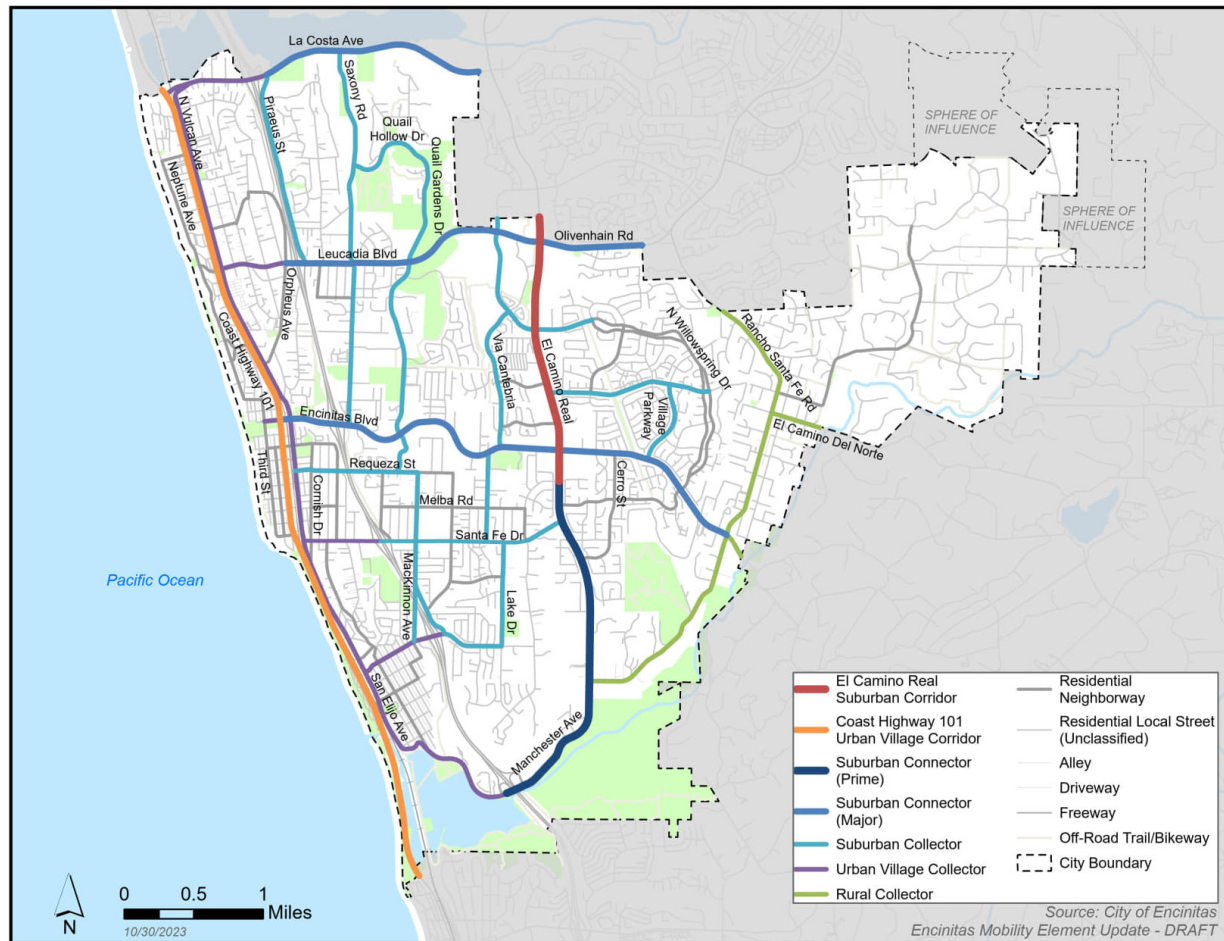
Table 3.6-1 Street Type	
Connector (Prime & Major)	Connects neighborhoods & destinations across longer distances (beyond typical bike/walk distance)
Collector	Provides mobility in, out & through neighborhoods & destinations
Residential Neighborway	Provides local access to residential streets. Often within walksheds of key destinations
Local Street (Unclassified)	Provides direct access to individual residences
Special Designation Corridors	Provides mobility along Coast Highway 101 and El Camino Real, often in accordance with specific plans or other focused plans

Table 3.6-2 Detailed Street Typology

No.	Street Type	Vehicular Function	Lanes (number up to) ¹	Median	Preferred ROW
Connectors Prime (CNP) and Connector Major (CNM) connect neighborhoods and destinations across longer distances (beyond typical bike/walk distance).					
CNP-6M	Suburban Connector	Prime Arterial	6	Raised median	135'
CNP-4N	Suburban Connector	Prime Arterial	4	None	135'
CNM-4M	Suburban Connector	Major Arterial	4	Raised median	100'
CNM-4L	Suburban Connector	Major Arterial	4	TWLTL	100'
Suburban Collectors (SC), Urban Village Collectors (UVC) and Rural Collectors (RC) provide mobility in, out, and through neighborhoods and destinations.					
SC-4M	Suburban Collector	Collector	4	Raised median	75'
SC-4L	Suburban Collector	Collector	4	TWLTL	75'
SC-2M	Suburban Collector	Collector	2	Raised median	75'
SC-2L	Suburban Collector	Collector	2	TWLTL	75'
SC-2N	Suburban Collector	Collector	2	None	75'
SC-1N	Suburban Collector	Collector	1	None	75'
UVC-2M	Urban Village Collector	Collector	2	Raised median	85'
UVC-2L	Urban Village Collector	Collector	2	TWLTL	85'
UVC-2N	Urban Village Collector	Collector	2	None	85'
RC-2N	Rural Collector	Collector	2	None	81'
Residential Neighborways (RN) provide local access to residential streets. Often within walksheds of key destinations.					
RN-2M	Residential Neighborway	Local	2	Raised median	70'
RN-2L	Residential Neighborway	Local	2	TWLTL	70'
RN-2N	Residential Neighborway	Local	2	None	70'
RN-1N	Residential Neighborway	Local	1	None	70'
Special Designation Corridors provide mobility along Coast Highway 101 (CC) and the El Camino Real (E), often in accordance with specific plans or other focused plans.					
E-6M	El Camino Real Suburban Corridor	Prime Arterial	6	Raised median	150'
CCM-4M	Coast Highway 101 Urban Village Corridor	Major Arterial	4	Raised median	125'
CC-4M	Coast Highway 101 Urban Village Corridor	Collector	4	None	125'
CC-4L	Coast Highway 101 Urban Village Corridor	Collector	4	TWLTL	125'
CC-3M	Coast Highway 101 Urban Village Corridor	Collector	3	Raised Median	125'
Key: ROW = right-of-way TWLTL = two-way left-turn lane '=feet Note: ¹ Any lane count listed for a given roadway classification or street typology represents a notional capacity based on maximum traffic volumes. City Council retains the discretion to reduce lane counts within the classified network, and the lane count within this table is not prescriptive.					

The street network is the backbone of the City's multimodal networks, comprised of most of the City's rights-of-way, and accommodates multiple modes (**Figure 3.6-1**).

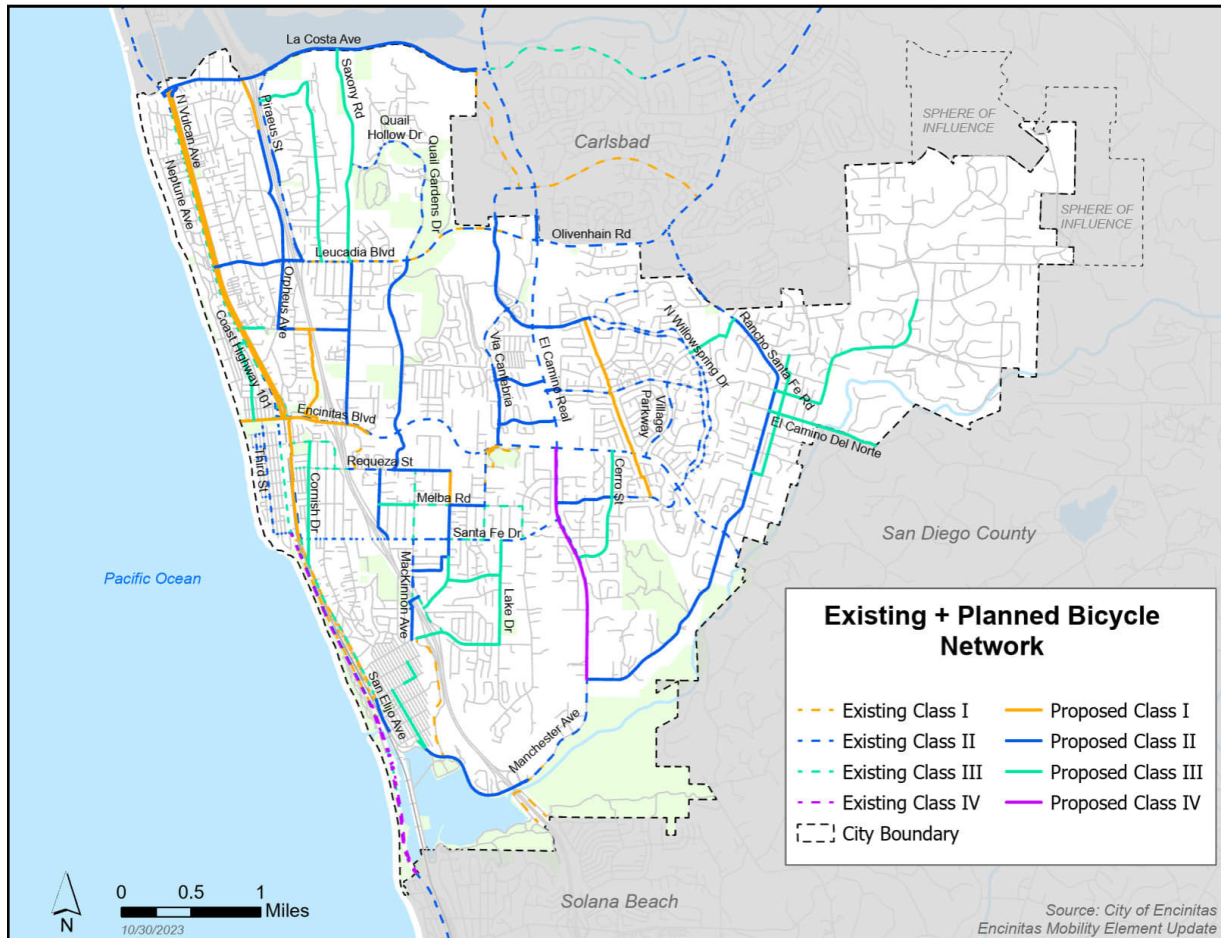
Figure 3.6-1 Street Network



3.6.1.2 Bicycle/Micromobility Network

As shown on **Figure 3.6-2** the bicycle/micromobility network facilitates active transportation for bicycles and micromobility equipment including scooters, skateboards, other wheeled, and assistive devices. Several classes of bicycle facilities are described in this subsection (City of Encinitas 2018a).

Figure 3.6-2 Bicycle/Micromobility Network



Class I Multi-Use Pathway

These pathways provide exclusive rights-of-way for bicyclists and pedestrians and cross flows by motor vehicles are kept to a minimum. They are physically separated from motor vehicle routes. Most are two-way, but one-way facilities are addressed in the California Department of Transportation (Caltrans) standards.

Physical separation is recommended where a Class I facility parallels a motor vehicle route. Any separation of less than 5 feet from the pavement edge of a motor vehicle route requires a physical barrier to maintain separation from the roadway. Anywhere there is the potential for motor vehicles to encroach onto a Class I bicycle facility, a barrier should be provided. Class I routes immediately adjacent to a street are not recommended because many bicyclists find it less convenient to ride on this facility type compared to on the street, especially for utility trips such as commuting. In addition, Class I routes immediately adjacent to a street are not recommended because they can encourage wrong-way riding on the street and can create safety problems at intersection crossings.

The paths should be wide enough (10 feet minimum) to accommodate multiple user types and should include an unpaved side path (2 to 4 feet) for users who prefer a softer surface.

Class II Bicycle Lanes

These are one-way facilities within roadways placed next to the curb or parking lane for preferential use by bicyclists within the paved area of streets. They are designated by striping, pavement markings, and signage. Class II facilities must be at least 5 feet wide where no parking occurs, and 6 feet wide where parking occurs. Class II facilities are in place throughout the eastern portion of Encinitas east of Interstate 5. Class II lanes may be used where roadway speeds and traffic volumes are fairly high, but adequate roadway width is available. Directness and number of users are significant factors.

Class IIB Buffered Bicycle Lane

In many cases, roadway width allows typical Class II lanes to be upgraded to buffered bicycle lanes, often by repurposing a small amount of width from each vehicle travel lane during typical resurfacing and repainting operations to provide paint-demarcated buffering for the adjacent bicycle lane. The additional buffered width helps visually separate the bicycle lane from vehicle traffic lanes or parking lanes, or both, and helps direct bicyclists to ride away from potential car doors opening into their path.

Class III Bicycle Route

These facilities are one-way routes within the street right-of-way and share the travel lane, designated by signage and shared lane markings “sharrows” only, without striping.

Class IIIB Bicycle Boulevard

These facilities are within the street right-of-way, generally on both sides; share the travel lane; and are designated by signage and special lane markings. The facilities enhance the street to support bicycle travel by providing traffic diverters, curb extensions, and other traffic calming measures.

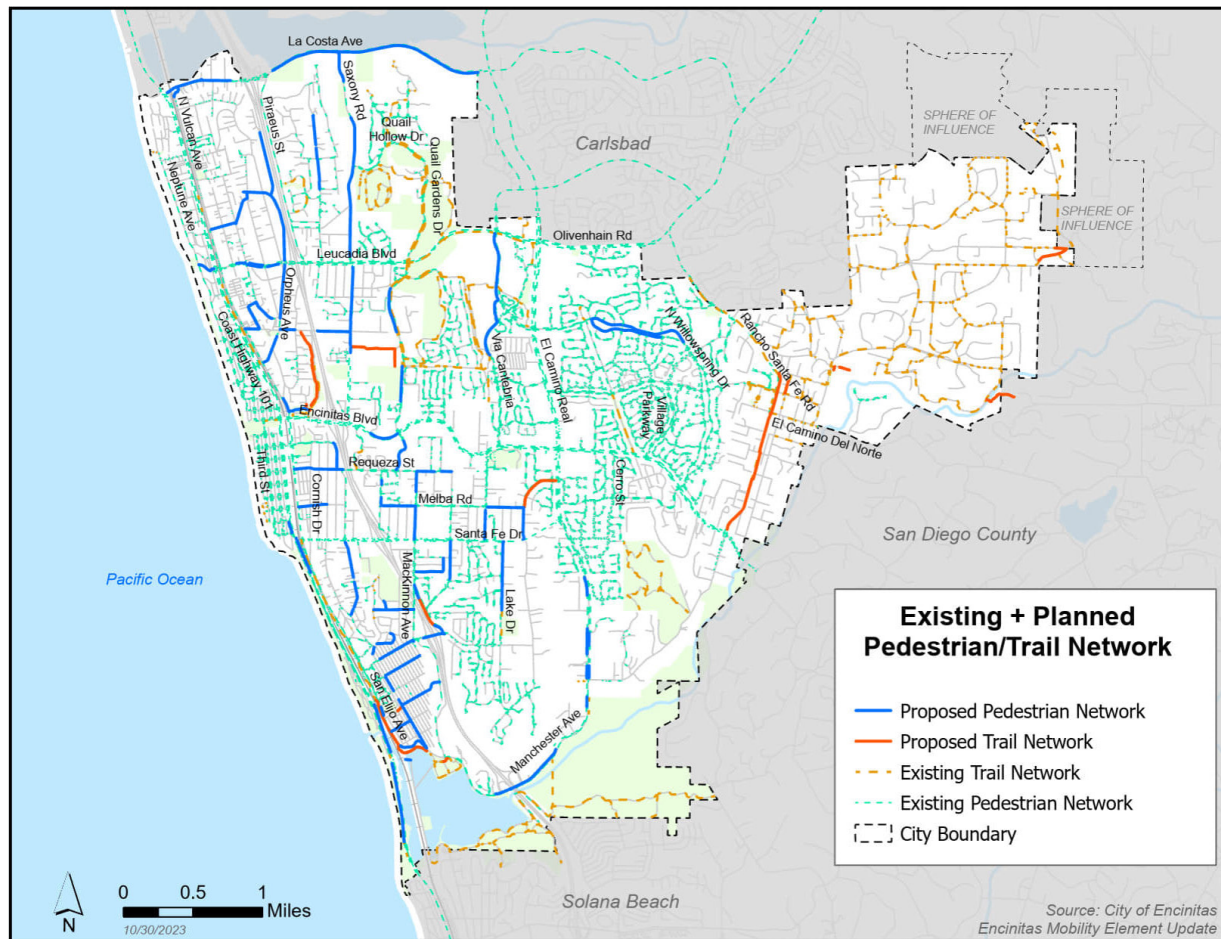
Class IV Cycletrack

These facilities are within the street right-of-way along the curb; physically separated from vehicular traffic by barriers, or vehicle parking, or both; and intended specifically for bicyclist use. They may be one- or two-way.

3.6.1.3 Trail Network

Shown on **Figure 3.6-3**, the trail network facilitates active transportation for pedestrians and, in many cases, for bicycles and micromobility including scooters, skateboards, and assistive devices.

Figure 3.6-3 Trail Network



In addition to the Class I multi-use paths that are shared with bicyclists and other users, noted in Section 3.6.1.2, Bicycle/Micromobility Network, there are also five other categories of walking facilities described in this subsection (City of Encinitas 2018a). Not all neighborhoods have sidewalks, especially the older, single-family residential neighborhoods with substantial slopes.

Type 1: Nature Trail

A natural trail uses only native soils or natural materials for the surface. The walking area is generally from 1 to 4 feet wide. This trail type is not normally Americans with Disabilities Act (ADA) accessible due to the surface and more abrupt changes in elevation and surface treatments. This pedestrian facility is normally used for recreation but can be used as a shortcut for pedestrians en route to a destination.

Type 2: Recreation Trail

A recreation trail is a natural trail surface but is more compact than a nature trail. By definition, it must meet ADA requirements on a firm surface and maximum slopes and barriers. The trail could be made with decomposed granite that has been heavily compacted or stabilized through emulsifiers or other concrete or natural products. The trail surface should be a minimum of 4 feet wide and a maximum of 8 feet wide.

Type 3: Street Edge Enhancement

This walking route type intends to provide a continuous firm surface for people walking along streets where sidewalks are not available, such as in neighborhoods where standard sidewalks do not exist and are either not wanted or difficult to incorporate due to a limited right-of-way. Because these facilities are attached to the roadway edge whose grade is exempt from ADA requirements, this facility, as part of the roadway, can be considered ADA compatible if it is a minimum of 30 inches wide and has a firm surface. The area should be identified by a solid white stripe or other edge treatment. The surface can be existing asphalt, concrete or well compacted decomposed granite, or chip seal material, as long as it is flat and easy to walk on. Signage is suggested for wayfinding as a City walking route and to communicate to drivers to be aware of pedestrians, as well as “No Parking on Road Shoulder - Walking Route.”

Type 4: Sidewalk

This is the standard type curb, curb and gutter, or raised walkway that is typically concrete or asphalt. These walkways should be no less than 4 feet wide and must meet ADA cross pitch limitations and corner ramp requirements.

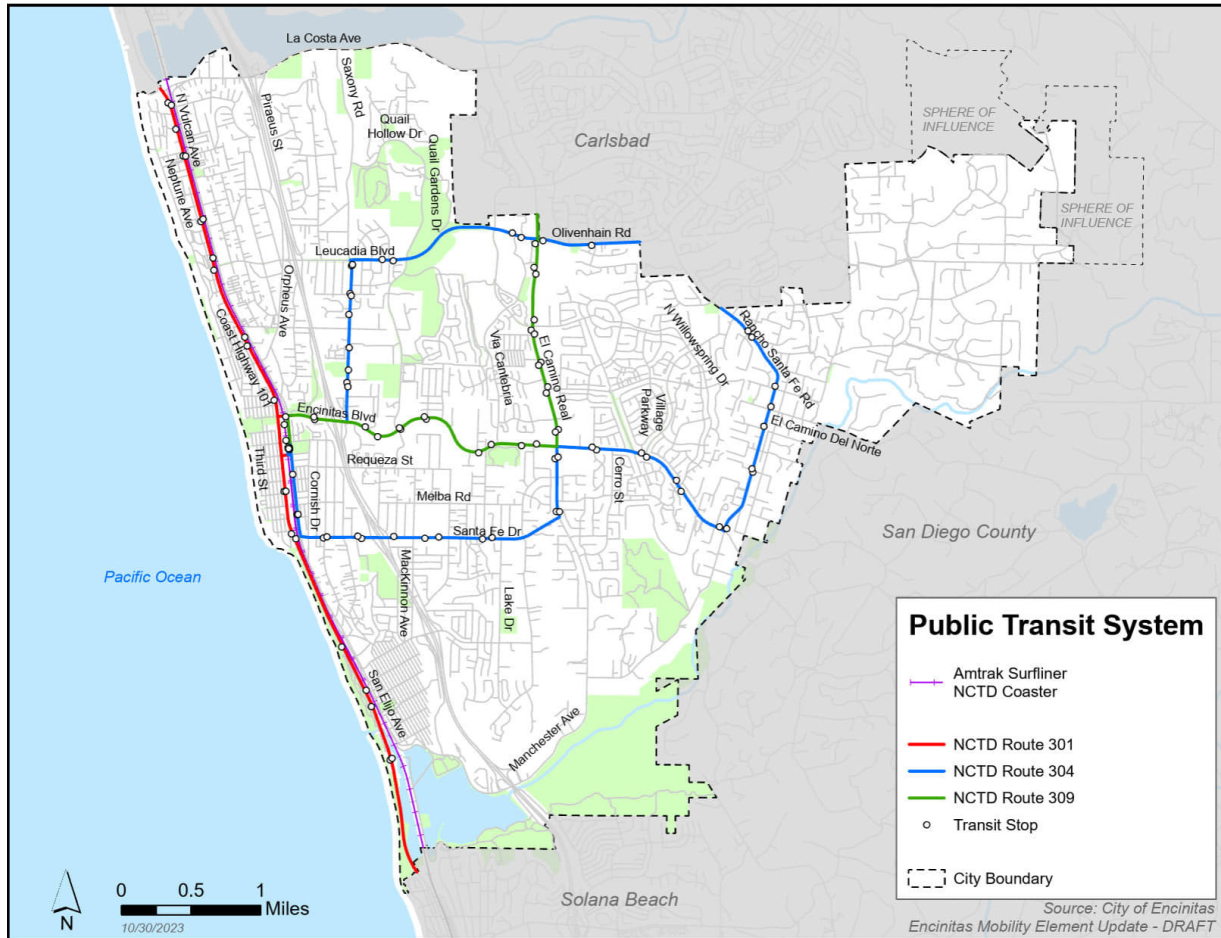
Type 5: Multi-use Pathway (Class I Multi-use Path)

This facility type is described in Section 3.6.1.2 Bicycle/Micromobility Network, since it also serves that use. It must be firmly surfaced and meet all ADA requirements. These pathways should be at least 8 feet wide where bicyclist or pedestrian volumes are expected to be relatively low (plus 2-foot-wide, level graded edges, along each side of the path). If volumes are likely to be high, the minimum width needs to be 10 feet, and more preferably 12 feet with parallel 2-foot firm surface side trails. The path surface must be firm and can consist of asphalt, concrete, permeable asphalt or concrete, chip seal compacted material, emulsified and stabilized decomposed granite, or another surface capable of supporting moderately skinny bicycle and wheelchair wheels without deforming.

3.6.1.4 Public Transit Network

Figure 3.6-4 shows the fixed-route public transit network that provides mobility services via railroad and bus modes. Public transit service is provided by North County Transit District in accordance with long-term plans adopted by the San Diego Association of Governments (SANDAG), of which the City of Encinitas is a member agency.

Figure 3.6-4 Public Transit Network



3.6.2 Regulatory Framework

This section discusses the federal, state, and local plans and regulations most applicable to the MEU.

3.6.2.1 State

California Public Utilities Commission

The California Public Utilities Commission regulates privately owned railroad and rail transit. California Public Utilities Commission staff ensures that highway-rail and pathway-rail crossings are safely designed, constructed, and maintained. The Rail Crossings and Engineering Branch engineers investigate and evaluate requests to construct new rail crossings or modify existing crossings.

California Department of Transportation

Caltrans is the primary state agency responsible for the construction and maintenance of the state highway system. Caltrans has established standards for street traffic flow and has developed procedures to determine if intersections require improvements. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. In addition, Caltrans must review proposals to signalize any freeway ramp interchanges through their Intersection Control Evaluation process (Caltrans Traffic Operations Policy Directive No.13-01).

California Transportation Commission

The California Transportation Commission (CTC) consists of nine members appointed by the governor. The CTC is responsible for the programming and allocation of funds for the construction of highways, passenger rail, and transit improvements throughout the state. The CTC is also responsible for adopting the state Transportation Improvement Program and the state Highway Operation and Protection Program.

California Complete Streets Act of 2008

Supporting some of the previously referenced regulations/requirements, the California Complete Streets Act of 2008 (Assembly Bill [AB] 1358) requires circulation elements as of January 1, 2011, to accommodate the transportation system from a multimodal perspective, including public transit and walking and biking, which have traditionally been marginalized in comparison to automobiles in contemporary American urban planning. The act states: “In order to fulfill the commitment to reduce greenhouse gas emissions, make the most efficient use of urban land and transportation infrastructure, and improve public health by encouraging physical activity, transportation planners must find innovative ways to reduce vehicle miles traveled (VMT) and to shift from short trips in the automobile to biking, walking and use of public transit.”

Senate Bill 743

Senate Bill (SB) 743 was passed by the legislature and signed into law in the fall of 2013. This law changed the way transportation impact analyses are conducted under the California Environmental Quality Act (CEQA). Within the State’s CEQA Guidelines, these changes include elimination of auto delay, level of service, and similar measurements of vehicular roadway capacity and traffic congestion as the basis for determining significant impacts. In December 2018, new CEQA Guidelines implementing

SB 743 (CEQA Guidelines Section 15064.3), along with the Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts for CEQA were finalized. The requirement for CEQA transportation analysis to use VMT as the required metric went into effect on July 1, 2020. CEQA Guidelines Section 15064.3 provides requirements for determining the significance of transportation impacts and states, "This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts." VMT is a metric that accounts for the number of vehicle trips generated and the length or distance of those trips. VMT does not directly measure traffic operations but instead is a measure of network use or efficiency, especially if expressed as a function of population or employment (e.g., VMT/capita or VMT/employee).

Coastal Act

The California Coastal Act (Public Resources Code Division 20) prioritizes the public's right to access the shoreline. Public Resources Code 30210 to 30214 states, "[M]aximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse." The Coastal Act requires that development not impede existing rights of access and encourages new public access to coastal resources.

3.6.2.2 Regional

The Regional Plan

SANDAG is the regional authority that creates region-specific documents to provide guidance to local agencies, as SANDAG does not have land use authority. SANDAG's San Diego Forward: The 2021 Regional Plan (SANDAG 2021a) is the long-range planning document developed to address the region's housing, economic, transportation, environmental, and overall quality-of-life needs. The Regional Plan is intended to provide a plan for future growth through the year 2050 based on principles of sustainability and smart growth. It is intended to result in more compact development patterns with greater emphasis on use of transit and less need to rely on private vehicle travel. The Regional Plan contains the following required elements: Policy Element, Sustainable Communities Strategy, Financial Element, and Action Element. Relevant objectives of the Regional Plan include:

- Promote healthy and complete communities.
- Create great places for everyone to live, work, and play.
- Connect communities through transportation choices that promote healthy lifestyles, including walking and biking.
- Increase the supply and variety of housing types—affordable for people of all ages and income levels in areas with frequent transit service and with access to a variety of services.

SANDAG Regional Bike Plan

The Riding to 2050, the San Diego Regional Bike Plan adopted by SANDAG supports implementation of the Regional Plan. It provides a regional strategy to make riding a bike a useful form of transportation for everyday travel. The plan would help San Diego meet its goals to reduce greenhouse gas (GHG) emissions and improve mobility. The goals of the Regional Bike Plan include increasing levels of

bicycling; improving bicycling safety; encouraging the development of Complete Streets; supporting reductions in emissions; and increasing community support. In September 2013, the SANDAG Board of Directors approved funding to implement the Regional Bike Plan Early Action Program, which focuses on the region's highest-priority projects. The Regional Bike Plan is currently being updated as part of SANDAG's Active Transportation Program.

3.6.2.3 Local

General Plan/ Local Coastal Program

The General Plan is the primary source of long-range planning and policy direction used to guide growth and preserve the quality of life in the city. The General Plan states that a goal of the City is to analyze proposed land uses to ensure that the designations would contribute to a proper balance of land uses within the community. The relevant goals and policies of the MEU are described in Section 3.6.5, Proposed MEU Policies. The MEU accounts for the goals and policies of several other General Plan elements to produce a forward-thinking and well-balanced plan for the City's transportation network. Goals and policies in the Mobility Element are designed to support and complement those of other elements (City of Encinitas 1989).

Land Use Element

The Land Use Element is an important consideration when classifying a circulation network, as land uses and siting of key destinations determine where and how bikes, pedestrians, transit, and automobiles move throughout the city. The following policies within the Land Use Element that pertain to transportation impacts include:

- Goal 1: Encinitas will strive to be a unique seaside community providing a balance of housing, commercial light industrial/office development, recreation, agriculture, and open space compatible with the predominant residential character of the community.
 - Policy 1.7: Provide regional shopping centers only when a demonstrated need exists; and locate them in areas adjacent to major highways to provide convenient access.

Housing Element

The Housing Element works in conjunction with the Land Use Element, which establishes the type, intensity, and distribution of land uses, including housing, throughout the city. In turn, the Housing Element also plays a key role in developing a circulation network, as housing and an effective transportation system are imperative to the vitality of the other.

Public Safety Element

This Mobility Element works in conjunction with the Public Safety Element by ensuring that emergency services can move through the city on the circulation network efficiently. The following policies within the Public Safety Element that pertain to transportation impacts include:

- Goal S-1B: A Community that can easily evacuate.
 - Policy S-1.7: Ensure adequate evacuation capacity and infrastructure is available for existing and new development.
 - S-1.7a – Implement evacuation measures locally as outlined within the San Diego County Emergency Operations Plan (EOP) Annex Q titled, Evacuations.
 - S-1.7b – Develop Evacuation Master Plan that identifies routes, potential hazard incidents, and criteria regarding capacity, safety, and viability.
 - Policy S-1.8: In areas with inadequate access or without at least two evacuation routes, provide adequate mitigation actions to address the deficiencies required by the Fire Code and State law.
 - Policy S-1.9: For residential developments in hazard areas that do not have at least two emergency evacuation routes, identify alternate evacuation options, implement earlier evacuation notifications, and develop protocols for future evacuations that consider the constraints associated with these areas.
- Goal S-4A: Reduced threat from wildland and urban fire hazards for Encinitas residents, businesses, and Visitors.
 - Policy S-4.8: Require new developments, and existing non-conforming development, to conform to contemporary fire safe standards related to road standards and vegetative hazards.
 - S-4.8a - Develop, implement, and maintain a public outreach program educating the community about contemporary fire safe standards, and wildland fire preparedness.
 - S-4.8b - Support the identification and use of potential funding opportunities that assist with retrofitting existing structures threatened by wildfires.
 - Policy S-4.9: Require all redevelopment after a fire to meet current Fire Code requirements.
 - Policy S-4.11: Maintain access (ingress and egress) for fire apparatus vehicles along public streets in very high fire hazard severity zones for emergency equipment and evacuation.
- Goal S-4D: A community that maintains adequate levels of emergency services.
 - Policy S-4.24: Require and maintain adequate setbacks, easements, and accesses, to ensure that emergency services can function.
 - Policy S-4.31: Coordinate and ensure adequate infrastructure for new development related to:
 - d) Evacuation and emergency vehicle access.

- Goal S-5: A community protected from exposure to hazardous materials and wastes.
 - Policy S-5.2: Restrict the transport of hazardous materials to identified truck routes throughout the City.
 - Policy S-5.3: Coordinate with railroad operators to ensure hazardous materials are transported through the City safely and do not present a threat to life or property.
- Goal S-8: Public health and safety will be considered in future land use planning (Coastal Act/ 30253).
- LCP Goals and Policies
 - Policy S-8.10: Ensure planning, preparedness, and emergency response capabilities can accommodate tsunami hazard events.

Resource Management Element

The Mobility Element works with the Resource Management Element by promoting active transportation and cleaner air and ensuring that the circulation network prioritizes improvements on existing roads rather than constructing new roads. The following policies within the Resource Management Element that pertain to transportation impacts include:

- Goal 4: The City, with the assistance of the State, Federal and Regional Agencies, shall provide the maximum visual access to coastal and inland views through the acquisition and development of a system of coastal and inland vista points. (Coastal Act/ 30251)
 - Policy 4.4: The system of Vista Points will provide for the differing needs of automobile, bicycle, and pedestrian users, and will recognize as a recreational resource, the function of Vista Points as facilities for the passive, and occasionally remote enjoyment of the coastal and inland view. (Coastal Act/ 30251/ 30212. 5/ 30210)

Recreation Element

This Mobility Element would ensure that residents and visitors to Encinitas would be able to utilize the mobility network to access key destinations, including a variety of recreational resources. The following policies within the Recreation Element that pertain to transportation impacts include:

- Goal 1: The maintenance of the open space resources in the Planning Area will continue to be emphasized. (Coastal Act/30240)
 - Policy 1.11: Develop an open space program that will link the various communities together with parks, recreation/pedestrian access and natural visual corridors.
 - Policy 1.16: The City has adopted a City-wide Recreational Trails Master Plan to establish a recreational trails system. The proposed trail system is shown on the Recreational Trails Master Plan Map (Figure 3 [of the Recreation Element]). Future trails, in addition to those planned for in the Recreational Trails Master Plan, may be added to the existing systems to enhance the recreational opportunities of the City. Within the coastal zone, all proposed trails and trail alignments shall be consistent with the requirements of Policy 10. 5 of the Resource Management Element, and the Multiple Habitat Conservation Program (MHCP) subarea plan for the City of Encinitas, if adopted. Any proposed modifications or additions

to the Recreational Trails Master Plan or Recreational Trails Master Plan map that would directly affect coastal zone resources shall require an LCP amendment.

Noise Element

This Mobility Element would consider the context when classifying the circulation network in Encinitas and would consider sensitive receptors that might be impacted by traffic noise. Quantified noise contours provided in this element are particularly relevant to this Mobility Element, as traffic-related noise is one of the principal disturbances listed in the Noise Element. The following policies within the Noise Element that pertain to transportation impacts include:

- Goal 1: Provide an acceptable noise environment for existing and future residents of the City of Encinitas.
 - Policy 1.1: Review actions or projects that may have noise generation potential to determine what impact they may have on existing land uses. If a project would cause an increase in traffic noise levels, the policy of the City of Encinitas is to accept an increase up to an Ldn of 55 dB in outdoor residential use areas without mitigation. If a project would increase the traffic noise level by more than 5 dB and the resulting Ldn would be over 55 dB, then mitigation measures must be evaluated. If the project, or action, would increase traffic noise levels by 3 dB or more and the resulting Ldn would exceed 60 dB in outdoor use areas in residential development, noise mitigation must generally be evaluated on a case-by-case basis. The following guidelines will aid in evaluating the impacts of commercial and industrial projects.
 - a) Performance Standards Adjacent to Residential Areas. New Commercial construction adjacent to residential areas should not increase noise levels in a residential area by more than 3 dB (Ldn) or create noise impacts which would increase noise levels to more than an Ldn of 60 dB at the boundary of the nearest residential area, whichever is more restrictive.
 - b) Performance Standards Adjacent to Commercial and Industrial Areas. New commercial projects should not increase noise levels in a commercial area by more than 5 dB (Ldn) or increase noise levels to an Ldn in excess of 70 dB (office buildings, business and professional) or an Ldn of 75 dB industrial) at the property line of an adjacent commercial/ industrial use, whichever is more restrictive.

These criteria may be waived if, as determined by a noise analysis, there are mitigating circumstances (such as higher existing noise levels) and/or no uses would be adversely affected. Where conditions are unusual or where backgrounds are unusually low and the characteristics of a new noise source are not adequately described by using the Ldn noise descriptor, additional acoustical analysis is encouraged, and the conclusions of such analysis will be considered by the City.

- Policy 1.6: Include noise mitigation measures in the design of new roadway projects recognizing that driveways, street openings, and other existing site conditions make noise mitigation impossible.

- Goal 2: Require that new development be designed to provide acceptable indoor and outdoor noise environments.
 - Policy 2.1: Figure 2 [of the Noise Element], the Noise and Land Use Compatibility Guidelines, and the accompanying discussion set forth the criteria for siting new development in the City of Encinitas. Any project which would be located in a normally unacceptable noise exposure area, based on the Land Use Compatibility Guidelines, shall require an acoustical analysis. Noise mitigation in the future shall be incorporated in the project as needed. As a condition of approval of a project, the City may require post-construction noise monitoring and sign off by an acoustician to ensure that City requirements have been met.

The City has also adopted a Local Coastal Program (LCP) that is comprised of a Land Use Plan and an Implementation Plan (City of Encinitas 1995). The Land Use Plan includes issues and policies related to the requirements of the Coastal Act. The Implementation Plan consists of portions of the City's Municipal Code and the City's various specific plan areas including the Cardiff-by-the-Sea Specific Plan, Encinitas Downtown Specific Plan, Encinitas North 101 Corridor Specific Plan, and Encinitas Ranch Specific Plan. The specific plans refer to the General Plan's goals and policies.

Encinitas Climate Action Plan (CAP)

Encinitas adopted its CAP in January 2018, with an interim revision in November 2020 (City of Encinitas 2020a). The CAP contains GHG emissions inventory, projections, goals, reduction measures, and actions to reduce citywide GHG emissions and achieve the City's 2020 and 2035 reduction targets. The CAP sets targets to reduce emissions 13% below 2012 levels by 2020 and 41% below 2012 levels by 2030. Refer to Section 3.2 of this PEIR detailed CAP reduction strategies and goals.

Encinitas Coastal Mobility and Livability Study

The Coastal Mobility and Livability Study links together three separate mobility studies including the Rail Corridor Vision Study, the Coastal Corridor Parking Study, and the Active Transportation Plan to provide a long-term vision for potential projects within and adjacent to the rail corridor. This study creates a work program to ensure activities and tasks are managed in a coordinated way with effective public outreach and community engagement.

Rail Corridor Vision Study

The purpose of the Rail Corridor Vision Study is to develop an organized plan for multimodal access throughout the Encinitas coastal railroad corridor, which is centered around the Los Angeles-San Diego-San Luis Obispo Rail Corridor and parallel roads Coast Highway 101 and Vulcan Avenue/San Elijo Avenue (City of Encinitas 2018b). Refer to Cross-Connect Implementation Plan below which evaluates how to link Encinitas across the railroad tracks.

Active Transportation Plan

The City of Encinitas Active Transportation Plan (ATP) was adopted in 2018. It established a network of biking and walking facilities throughout the city and identified needed routes, gap closures, safety considerations, and facility options for active transportation modes. The ATP updated and consolidated the City's active transportation planning efforts including the previous Bikeway Master Plan, the Safe Routes to School Plan, and the Trails Master Plan. Plan objectives included establishing bicycling and

walking facility types and identifying connections between the City's bikeway system and the regional system (City of Encinitas 2018a).

Encinitas Modal Alternatives Project Implementation Plan

The Encinitas Modal Alternatives Project (MAP) Implementation Plan is an implementation plan for the ATP. This plan provides the City with a prioritized list of bike and pedestrian projects from the 2018 ATP that reflect the community's desires and values. It also includes conceptual plans and fact sheets for 35 of the highest-priority projects, so that the City is well-positioned to apply for additional grant funding (City of Encinitas 2023a).

El Camino Real Specific Plan

The City is developing the El Camino Real Specific Plan, a plan that will reimagine possible future development within the El Camino Real corridor in the city. The plan will include development standards to guide development along the corridor in addition to corridor-specific streetscape policies supporting enhanced streetscape amenities within this area of the city. The draft El Camino Real Specific Plan is anticipated to be considered by decision-makers in 2024.

City of Encinitas Senate Bill 743 Vehicle Miles Traveled Analysis Guidelines.

The City's SB 743 Vehicle Miles Traveled Analysis Guidelines (VMT Guidelines) provide guidance for evaluating transportation impacts under CEQA related to VMT in addition to guidance for discretionary/entitlement non-CEQA Local Mobility Analysis. As detailed in the City's VMT guidelines, certain types of projects are screened out from further VMT analysis including projects generating less than 110 ADT, projects within a half-mile radius of an existing major transit stop or high-quality transit corridor, projects in a VMT-efficient area, locally serving retail or public facility projects, redevelopment projects with less total VMT than existing uses, and affordable housing projects.

Projects that do not meet one of the screening criteria must include a detailed evaluation of the VMT produced by the project. The significance thresholds and specific VMT metrics used to measure VMT are described by land use type including:

- Residential: 15% below the existing Citywide average.
- Employment (i.e., all employment types including office, commercial, hotel, and industrial): At or below the regional average.
- Mixed-Use: Each Project component is evaluated per the appropriate metric based on land use type (e.g., residential, employment, and retail).
- Regional Retail, Regional Recreational, or Regional Public Facilities: A net increase in total regional VMT using the boundary method (City of Encinitas 2023b).

City of Encinitas Local Roadway Safety Plan

In 2016, California established the Systematic Safety Analysis Report Program (SSARP) in response to a growing need to address transportation safety at a Citywide level. The objective of the SSARP was to identify low-cost, systemic countermeasures that could be incorporated into an overall master plan of improvements. The Local Roadway Safety Plan is a safety plan prepared to identify strategies that would lead to a reduction in collisions.

The Local Roadway Safety Plan was adopted in 2022 and analyzes collision data, assesses infrastructure deficiencies through an inventory of roadway system elements, and identifies roadway safety solutions on a citywide basis. The Local Roadway Safety Plan also addresses other safety improvements in other areas such as enforcement, education, and emergency services (City of Encinitas 2022).

Institute of Traffic Engineers Guidelines

In May 2019, members of the Institute of Transportation Engineers (ITE) SB 743 subcommittee San Diego Section outlined and published a technical paper providing methodology guidance for VMT calculation. The recommended methodology for conducting a VMT analysis for community plans and general plans is to compare the existing VMT per capita for the community plan or general plan area with the expected horizon year VMT per capita. The recommended target is to achieve a lower VMT per capita in the horizon year with the proposed plan than occurs for existing conditions.

Rail Corridor Cross-Connect Implementation Plan

The Rail Corridor Cross-Connect Implementation Plan builds upon the recommendations of the recently completed Rail Corridor Vision Study (refer to Rail Corridor Vision Study above) and Coastal Mobility and Livability Study (refer to “Coastal Mobility and Livability Study” above)), which broadly examined multimodal access issues and opportunities along the multimodal coastal corridor in the City. The overarching goal of the Rail Corridor Cross-Connect Implementation Plan is to provide a prioritized list of implementable projects that can improve access across the Los Angeles-San Diego-San Luis Obispo Rail Corridor as funding opportunities arise (City of Encinitas 2020b).

3.6.3 Significance Determination Thresholds

Thresholds used to evaluate impacts related to transportation are based on applicable criteria in the CEQA Guidelines Appendix G. The following issue questions are addressed in this section:

1. Would the Project conflict with an adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?
2. Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?
3. 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)?
4. Would the Project result in inadequate emergency access?

3.6.4 Methodology

3.6.4.1 VMT Reporting and Institute of Transportation Engineers Guidelines

As described in Section 3.6.2.1, automobile delay and level of service are no longer used as the performance measure to determine the transportation impacts of projects under CEQA. Instead, the VMT metric is used in CEQA analysis to support the goals of the SB 743 legislation. VMT is defined as the “amount and distance of automobile travel attributable to a project” per CEQA Guidelines Section 15064.3. The City adopted VMT Guidelines which define appropriate methodology for measuring

impacts to the transportation system based on VMT. The City's VMT guidelines identify the methodology recommended by ITE Guidelines as the appropriate methodology for conducting a VMT analysis for community plans and general plans (see Section 3.6.2.3). The ITE Guidelines methodology for conducting a VMT analysis for community plans and general plans is to compare the existing VMT per capita for the community plan or general plan area with the expected horizon year VMT per capita. The recommended target is to achieve a lower VMT per capita in the horizon year with the proposed plan than occurs for existing conditions.

Because the Project includes changes to the transportation network in the horizon year, it is unreasonable to compare the VMT generated by the MEU to existing conditions due to land use growth independent of the Project. Therefore, for the purposes of this analysis, VMT associated with the buildout of the MEU network is compared to VMT associated with the buildout of the adopted 1989 Circulation Element network. If the VMT per service population at the buildout of the MEU network is less than or equal to the VMT at the buildout of the adopted 1989 Circulation Element, the impacts of the Project would be less than significant. If VMT would increase with the Project, impacts would be considered significant.

3.6.4.2 Model Runs and Data Sources

Population and employment data was obtained from the SANDAG Series 15 Activity Based Model (ABM2+), which was customized for the City's MEU. The ABM2+ is a travel demand forecasting model that incorporates census data and travel surveys to inform the algorithms of the model's projections. It uses a simulated population based on existing and projected demographics to match residents to employment and forecasts the daily travel on the regional transportation network. In addition, the model can estimate the daily travel of individuals in the simulated population, including origins, destinations, travel distances, and mode choices.

For the City's MEU, the baseline year of 2016 was used for existing conditions input data and VMT was calculated with the 2050 forecast. The network properties (e.g., functional classification of roadways, number of lanes, roadway speed, and types of median) were checked against and modified to match the currently adopted 1989 Circulation Element and 2021 SANDAG Regional Plan before running the 2050 Adopted (Without Project) scenario. The 2050 Adopted scenario also included the land use assumptions for the City including the recently adopted Housing Element. Then Project-specific network modifications were applied to develop the With Project model run. Separate model runs were conducted for Without Project and With Project scenarios and VMT for both were extracted from the model runs.

3.6.5 Proposed MEU Policies

The MEU contains policies intended to reduce potential adverse environmental impacts resulting from the buildout of the regional plans. Future public and private projects, including capital projects would be required to demonstrate consistency with the MEU and/or implement components of the MEU as applicable. The policy framework would be implemented by the City during future discretionary and/or ministerial project reviews to ensure impact minimization. The analysis of potential impacts considers how the implementation of these policies at the project level would serve to reduce the

significance of potential adverse impacts. For the purposes of this analysis, this document only includes applicable MEU policies, which address potential impacts to transportation.

- Goal 1: Mobility System Purpose & Guiding Principles – Develop and maintain a mobility system that accommodates the City's diverse needs and land uses, including planned growth.
 - Policy ME1.1: Strategic Vision for Mobility – Ensure mobility decisions are consistent with the City's General Plan and other guiding documents, including the overarching vision to provide safe, accessible, and comfortable transportation for all modes of movement and all demographics.
 - Policy ME 1.2: Accommodation of Diverse Land Uses - Develop and maintain a mobility system that connects people to where they want to go with high-quality, multimodal connections between residential areas, schools, transit facilities, employment centers, parks, coastal resources, and commercial hubs.
 - Policy ME 1.4: Develop and maintain a street typology and classification system that integrates multiple modes and is sensitive to surrounding land uses.
- Goal 2: Multimodal Options – Provide multimodal mobility options that are safe, accessible, and comfortable for all types of users including residents, visitors, and goods movement.
 - Policy ME 2.1: Equitable Access for All Modes, Ages & Abilities - Provide multimodal mobility options that are safe, accessible, and comfortable for all types of users including residents, visitors, and goods movement.
 - Policy ME 2.2: Provide safe routes for children and families to access schools, with an emphasis on accommodating pedestrian, bicycle, micromobility, and public transportation modes. Refer to the Mobility Element, Active Transportation Plan, Local Roadway Safety Plan, and other adopted multimodal plans for further guidance.
- Goal 3: Vehicle Miles Traveled & Mode Share – Reduce automobile vehicle miles traveled and related impacts to air quality and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services.
 - Policy ME 3.1: Time-Competitive Mobility Options - Develop and support both facilities and programs that provide time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services.
 - Policy ME 3.3: Regional Transit Service - Continue coordination efforts with public transit providers to increase the accessibility of key destinations via public transit and improve its availability to underserved populations, consistent with the Climate Action Plan and other relevant state, regional, and local climate plans. This may include adding new routes and increasing the hours or frequency of existing services.
 - Policy ME 3.4: Citywide Microtransit Service - Investigate the feasibility of designing, funding, and operating a microtransit service to complement existing regional transit service and improve access to key destinations, consistent with the Climate Action Plan and other relevant state, regional, and local climate plans. Prioritize services that provide

- connections between residential areas, schools, transit facilities, employment centers, parks, coastal resources, and commercial hubs.
- Policy ME 3.6: Pedestrian Network - Maintain and implement the pedestrian network in the Mobility Element, the Active Transportation Plan (ATP), and other relevant mobility plans to achieve an interconnected system of pedestrian facilities, including nature trails, recreational trails, road edge enhancements, sidewalks, multi-use paths, intersection treatments, and crossings. Refer to the ATP or other adopted multimodal plans for further guidance on the pedestrian network.
 - Policy ME 3.7: Bicycle & Micromobility Network - Maintain and implement the bicycle/micromobility network in the Mobility Element, the Active Transportation Plan (ATP), and other relevant mobility plans to achieve an interconnected system of bicycle/micromobility facilities, including multi-use paths, lanes, shared routes, bicycle boulevards, cycle tracks, intersection treatments, and crossing facilities. Refer to the ATP or other adopted multimodal plans for further guidance on the bicycle/micromobility network.
 - Policy ME 3.11: Railroad Corridor Multi-use Paths - Collaborate with state and regional agencies to develop, improve, and maintain multi-use paths on both the east and west sides of the coastal railroad corridor. Refer to the Active Transportation Plan or other adopted multimodal plans for further guidance.
 - Goal 4: Improve system connectivity by adopting multimodal standards, eliminating gaps in mobility networks, and increasing the ease of multimodal and multi-jurisdictional travel.
 - Policy ME 4.1: Multimodal “Complete Streets” Design Standards - Incorporate “Complete Streets” elements in all development and mobility projects by adopting multimodal street and site design standards that encourage travel by all modes. As guided by the Mobility Element, Mobility Analysis Guidelines, Public Road Standards, Active Transportation Plan, and other relevant multimodal plans, potential design elements may include:
 - a) Facilities to support public transit such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks.
 - b) Facilities to support bicycle and micromobility such as multi-use paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations.
 - c) Facilities to support pedestrian travel such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping.
 - Policy ME 4.2: Quality Standards for Automobiles, Bicycles/Micromobility & Pedestrians - Transportation facilities shall operate efficiently across all modes and shall adhere to the cross-section requirements and quality standards detailed in the Mobility Analysis Guidelines (MAG) and supporting adopted multimodal plans. The MAG and supporting multimodal plans may be modified by the City of Encinitas without amending the Mobility Element provided they remain consistent with Mobility Element goals, policies, and networks.
 - Policy ME 4.3: Street & Intersection Operations - Regularly evaluate the operations of streets and intersections to include striping, signalization, timing, and other operational characteristics. Encourage features such as bicycle loop signal detectors, two-way bike

- boxes, and others as outlined in the MAGs. Adjust as needed to best accommodate the safe and efficient integration of all mobility modes.
- Policy ME 4.4: Pedestrian Crossings - Develop, improve, and maintain pedestrian crossings of major mobility corridors such as El Camino Real, La Costa Avenue, Leucadia Boulevard, Encinitas Boulevard, Manchester Avenue, Coast Highway 101, and the coastal railroad corridor, or crossings near schools or other pedestrian destinations consistent with the ATP and other implementation plans.
 - Policy ME 4.5: Coastal Circulation Network - To foster access to shoreline recreation areas, while maintaining adequate circulation on major coastal access roadways, development shall target equity among all modes of travel, including automobile, bicycle, micromobility, microtransit, pedestrian, and public transportation. Modification to major coastal access roadways shall be accompanied by public access benefit enhancements promoting multi-modal access which may include, but are not limited to, increased public transportation services; improved bicycle and pedestrian access; and increased public parking. Major coastal access roadways include Coast Highway 101 and the portions of the following roadways that are located west of Interstate 5: Manchester Avenue, Birmingham Drive, Santa Fe Drive, Encinitas Boulevard, Leucadia Boulevard, and La Costa Avenue.
 - Policy ME 4.8: Regional Mobility Planning - Collaborate with federal, state, regional, and local agencies to help plan and implement a regional, multimodal mobility system that is accessible to all potential users and achieves state and regional goals. Share information regarding mobility plans and studies with other agencies to support regional planning and coordination.
 - Policy ME 4.9: Regional Connectivity for Pedestrian, Bicycle & Micromobility Modes - Collaborate with regional and state agencies to plan and develop multi-jurisdictional facilities for pedestrian, bicycle, and micromobility modes (such as the Coastal Rail Trail, California Coastal Trail, and Inland Rail Trail) and associated connections to local facilities. Refer to the Active Transportation Plan and other relevant mobility plans for detailed guidance.
 - Policy ME 4.10: Regional Connectivity for Intelligent Transportation Systems (ITS) - Collaborate with state, regional, and other agencies to conduct ITS studies and seek funding to implement ITS improvements to increase the safety and efficiency of the mobility system.
 - Policy ME 4.11: Regional Connectivity for Transit Priority - Collaborate with public transit providers and adjacent jurisdictions to implement transit priority measures on existing and planned bus corridors.
 - Policy ME 4.12: Inter-Connectivity - Interconnecting pedestrian and bicycle access shall be provided between adjacent neighborhoods and land uses to the extent feasible, which shall include but not be limited to the dedication of easements for future connectivity and circulation, as further outlined in Ordinance No. 2019-24.

- Goal 5: Maximize the safety of the mobility system through design best practices, regular maintenance, community education, and consistent enforcement.
 - Policy ME 5.1: Safety for All Users - Prioritize safety for all users of the mobility system through a combination of design, enforcement, and education. Minimize harm through the development and implementation of the Local Roadway Safety Plan, strategies from the Vision Zero Initiative, and other relevant plans.
 - Policy ME 5.2: Maintenance & State of Good Repair - Regularly inspect and maintain public rights-of-way and infrastructure in a manner that provides safe conditions, keeps paved areas clear for all modes, minimizes long-term rehabilitation costs, and generally maintains a state of good infrastructure repair.
 - Policy ME 5.3: Traffic Calming & Speed Management – In conformance with the Manual on Uniform Traffic Control Devices (MUTDC) standards for setting speed limits, continuously evaluate the operation of the transportation system to maintain and enforce safe speed limits and provide for the safety of all mobility modes. Focus particularly on streets with the highest traffic volumes and/or speeds such as El Camino Real, Manchester Avenue, Leucadia Boulevard, Encinitas Boulevard, and Coast Highway 101. New traffic calming measures require approval of the City Traffic Engineer and City Fire Chief to ensure adequate emergency response pursuant to Fire Code Requirements.
 - Policy ME 5.4: Traffic Calming Design - Where feasible, reduce curb-to-curb street widths and employ design features intended to calm traffic and encourage alternative modes. Examples include curb extensions (bulb outs), medians, speed humps, pedestrian refuges, raised crosswalks, and mid-block crossings.
 - Policy ME 5.5: Railroad Safety - Promote safety at railroad crossings through a combination of design, education, and enforcement. Follow the latest guidance and best practices in railroad safety from relevant federal, state, and regional agencies, including the development of facilities and programs such as new pedestrian crossings and channelization; warning devices and signage; traffic signal improvements; visibility improvements; parking enforcement; enforcement of traffic and safety laws; and railroad safety awareness programs. Collaborate with state and regional agencies to implement the planned railroad grade separation at Leucadia Boulevard.
- Goal 6: Environmental & Community Impacts – Balance mobility benefits with impacts to the environment and community.
 - Policy ME 6.1: Development Project Review - New development projects requiring discretionary approval should be reviewed in accordance with the Mobility Analysis Guidelines, and supporting multimodal plans and standards, the Climate Action Plan (CAP), and the California Environmental Quality Act (CEQA) to evaluate and disclose potential impacts to the environment and community.
 - Policy ME 6.2: Resilient Mobility Systems - Develop and maintain a resilient and all-weather mobility system that helps to achieve the goals of the Climate Action Plan (CAP) and other relevant state, regional, and local climate and mobility plans, and is designed to withstand future increases in sea levels and sea temperatures; extreme heat; changes in precipitation patterns and water supply; and increased wildfire and flood risk.

- Policy ME 6.3: Sustainable Mobility Systems - Develop and maintain a sustainable mobility system that helps to achieve the goals of the Climate Action Plan (CAP) and other relevant state, regional, and local climate and mobility plans, and reduces the pollution, noise, and energy consumption associated with mobility activities.
- Policy ME 6.4: Emissions Reduction - Collaborate with state and regional agencies to establish best practices to reduce emissions of greenhouse gases and other harmful pollutants from transportation sources, consistent with the CAP and other relevant state, regional, and local climate and mobility plans.

3.6.6 Issue 1: Transportation Policy Consistency

3.6.6.1 Impacts

The MEU sets a long-term vision for Encinitas through the establishment of goals, multimodal networks, and supporting policies to accommodate the City's mobility needs into the future. The MEU would guide transportation decision making including plans for diverse modes and mobility options and future mobility improvements. The MEU was developed with consideration to the current local and state policy framework addressing the transportation system. Proposed changes to the City's existing Circulation Element policies account for VMT thresholds per SB 743 and metrics such as safety, bicycle, and pedestrian level of comfort, and trips-by-mode share. Relevant plans are discussed in this subsection with a description of how the proposed MEU would be consistent with key goals and policies of the respective plans.

Complete Streets

Consistent with the Complete Streets Act of 2008, the MEU incorporates updated goals and policies supporting a transportation network that can accommodate all users including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors. Goal 2 of the proposed MEU supports multimodal mobility options that are safe, accessible, and comfortable for all types of users and supporting policies address accessibility for all consistent with the Complete Streets Act. Policy 4.1 specifically addresses the requirement for the implementation of Complete Street design standards.

Senate Bill 743

The MEU is consistent with the legislative intent of SB 743. The MEU includes Goal 3 that supports reduced automobile VMT and congestion by providing competitive alternatives to automobile travel including transit, cycling, micromobility, walking, and on-demand mobility services. A number of City policies are identified to support the goal of reduced automobile VMT. As detailed in Section 3.6.5, Mobility Element Policies 3.1 through 3.4 support reduced automobile vehicle miles through improved transit services, including potential microtransit services. Policy ME 3.6 supports improvements to the pedestrian network and implementation of the ATP, Policy ME 3.7 supports enhanced bicycle and micromobility networks, and Policy ME 3.11 supports multi-use paths along rail corridors.

An evaluation was conducted to analyze the potential effects of the buildout of the Mobility Element in terms of mode share. Mode share refers to the various modes that people use to move around in the City, including driving, biking, walking, and other modes described in **Table 3.6-2**; and the percentage that each mode is used in an area. A City with a low single occupancy vehicle mode share would likely

have lower VMT per capita than a City with a high mode share for single occupancy vehicle use. As detailed in **Table 3.6-3**, implementation of the Mobility Element at buildout would have minimal effect on mode share choices in the City. Despite policies supporting shifts in mode share away from single occupancy vehicles, the City is anticipated to be dominated by single occupancy vehicle modes in 2050, similar to the 2016 baseline year. Some slight increases were noted in the mode share for persons who would walk to transit, kiss and ride to transit, and park and ride to transit. The mode share data is based on SANDAG's ABM2+. The 2016 Base Year model includes updated housing data to reflect current housing units accounting for recently constructed and approved units between 2016 and 2022. The 2050 With Project model run includes the adopted Housing Element, other future development expected to be completed by 2050, and the Mobility Element (which includes reductions in speed limits and travel lanes for select City roadways). The SANDAG model is not sensitive to changes in bicycle facilities due to the model treating all roads as having bicycle access, but not accounting for upgraded bicycle facilities that may affect usage. Overall, despite minimal anticipated changes in mode share, the Mobility Element includes policies supporting the legislative intent of SB 743.

Table 3.6-3 Mode Share Comparison between Existing Conditions and Buildout of the 2050 Mobility Element			
Modes	2016	2050 Mobility Element	Delta
Drive Alone	51.52%	51.25%	-0.27%
Drive Alone	51.52%	51.25%	-0.27%
Shared Ride 2 (two riders)	21.04%	21.30%	0.27%
Shared Ride 3+ (three or more riders)	17.14%	17.06%	-0.08%
Bike	2.54%	2.43%	-0.10%
Walk	5.49%	5.47%	-0.03%
Micromobility	0.01%	0.01%	0.00%
Transportation Network Companies (TNC)	0.58%	0.60%	0.02%
School Bus	0.94%	1.01%	0.07%
Taxi	0.02%	0.01%	-0.01%
Walk to Transit	0.49%	0.52%	0.03%
TNC to Transit	0.00%	0.00%	0.00%
Kiss and Ride to Transit	0.13%	0.17%	0.04%
Park and Ride to Transit	0.09%	0.15%	0.06%
Notes: TNC =Transportation network companies such as Uber and Lyft. Kiss and Ride to Transit is when people are dropped off at a transit station versus Park and Ride to Transit where the users park at the transit station and then ride.			

Coastal Act

Consistent with the access provisions of the Coastal Act, the MEU includes policies supporting lateral and vertical coastal access. MEU Policy 2.3 includes a policy to cooperate with state and regional agencies to ensure that lateral beach access is protected and enhanced, including requirements for the dedication of lateral accessways between the mean high tide line and the base of the coastal bluffs in new developments. Similarly, Policy 2.4 encourages continued vertical access to coastal resources,

supporting maintaining improved beach access, managing parking resources in high-demand coastal locations, and identifying strategies to increase capacity and efficiency of coastal access.

Regional Plan

The MEU incorporates policies that seek to ensure that the City is consistent with regional transportation planning. Policy ME 4.8 supports regional mobility planning including collaboration with local and regional agencies. Consistent with the Regional Plan goal to connect communities through a variety of transportation choices including walking and bicycling, the MEU includes Policy ME 4.9, which supports collaboration to develop multijurisdictional facilities for pedestrian, bicycle, and micromobility modes.

Active Transportation Plan

The MEU supports the implementation of the City's ATP by providing policies and plans supporting the implementation of biking and walking facilities consistent with the ATP.

City of Encinitas Climate Action Plan

Revisions to the MEU would support the implementation of the City's CAP. As discussed in Section 3.6.7, Issue 2, implementation of the MEU would not increase VMT at buildout. Further, Policy ME 6.2, Policy ME 6.3, and Policy ME 6.4 identify policies that would be supportive of the implementation of the City's CAP.

The Project would not conflict with adopted transportation policies, plans, and programs including those supporting transit, bicycle, and pedestrian facilities. Impacts would be less than significant.

3.6.6.2 Significance of Impacts

The Project would not conflict with any adopted transportation policies, plans, and programs including those supporting transit, bicycle, and pedestrian facilities. Impacts would be less than significant.

3.6.6.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.6.7 Issue 2: Vehicle Miles Traveled

3.6.7.1 Impacts

As detailed in Section 3.6.4.1, a significant transportation impact would occur if buildout of the MEU network would generate higher VMT per capita than the adopted 1989 Circulation Element. As detailed in Section 3.6.4.2, SANDAG's ABM2+ was used to calculate the VMT projections based on projected regional growth with the MEU network.

Table 3.6-4 presents the VMT per capita results for Base Year (2016) conditions. As shown, as of 2016, the City is anticipated to generate 12.4 VMT per capita while the region generates 18.8 VMT per capita.

Table 3.6-4 Encinitas Base Year VMT Metric		
VMT Metric	Base Year (2016)	
	Regional	Encinitas
VMT per capita	18.8	12.4

Table 3.6-5 outlines the City VMT per capita with implementation of the proposed MEU. As shown, the VMT per capita in the City is projected to be the same under the buildout of both the existing and proposed mobility network, with an estimated 21.6 VMT per capita for both scenarios. In addition, the VMT per capita for the region would also remain the same in both scenarios at 18.5 VMT per capita. Due to the VMT per capita with the proposed MEU not increasing above the projected VMT per capita for the existing mobility network, a significant VMT impact would not occur.

Table 3.6-5 VMT Impact Determination			
VMT per capita	2050 Without Project	2050 With Project	Significant Impact?
Encinitas	21.6	21.6	No
Regional	18.5	18.5	No
Source: Appendix E			

Based on the results of the VMT analysis (see Appendix E), implementation of the MEU would result in a less than significant VMT impact. Future capital projects anticipated to be implemented consistent with the MEU would similarly be found to result in less than significant VMT impacts based on the VMT analysis, which accounts for the buildout of MEU components.

As detailed in the City's VMT guidelines, the existing options to reduce VMT include modifying the Project's built environment characteristics to reduce VMT generated by the Project or implementing Transportation Demand Management measures to reduce VMT generated by the Project. As growth occurs in the City, individual development projects would require evaluation under the City's VMT guidelines. On a project-by-project basis, it is anticipated that individual development projects have the potential to exceed the City's VMT thresholds of significance.

3.6.7.2 Significance of Impacts

Implementation of the Project would result in less than significant impacts related to VMT due to VMT per capita not increasing at buildout compared to buildout of the existing mobility network.

3.6.7.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.6.8 Issue 3: Design Feature

3.6.8.1 Impacts

The Project would not substantially increase hazards due to design features. The Project incorporates policies and findings from the City's Local Roadway Safety Plan, Active Transportation Plan, and the Coastal Mobility and Livability Study, which make recommendations on circulation design improvements to increase user safety for all modes of transportation. Furthermore, the Project supports improvements to existing transportation deficiencies through policy support for high-quality bicycle facilities and improved pedestrian connectivity by eliminating gaps in the pedestrian network. The MEU supports the implementation of leading pedestrian intervals, protected intersections, separated bicycle facilities, and flexible lanes. These multimodal enhancements are intended to improve safety for all users of the roadway. The Project is not associated with incompatible uses that could increase hazards. As future development and capital projects are proposed, individual projects may be required to implement improvements consistent with the MEU. As applicable, future project-specific improvements would be determined through the preparation of a Local Mobility Analysis, approved by the City engineer.

As future development occurs or publicly initiated roadway improvements are proposed, the design of roadways and implementation of roadway modifications would be required to conform with applicable State and City design criteria which contain provisions to minimize roadway hazards. Compliance with applicable standards would be ensured through the review of design plans to the satisfaction of the City Engineer. The MEU contains goals and policies to incorporate multimodal design standards that encourage safe travel by all modes of transportation, including Goal 4, Policy ME 4.1, Policy ME 4.3, Policy ME 4.4, Goal 5, Policy ME 5.1, Policy ME 5.2, Policy ME 5.3, Policy ME 5.4, and Policy ME 5.5, as described in Section 3.6.5. Additionally, the implementation of the City's Local Roadway Safety Plan supports the elimination of traffic fatalities and injuries associated with transportation. As detailed in Section 3.6.2.3, the Local Roadway Safety Plan is a safety plan that analyzes collision data, assesses infrastructure deficiencies through an inventory of roadway system elements, and identifies roadway safety solutions on a citywide basis. The plan also addresses safety improvements through enforcement, education, and emergency services (City of Encinitas 2022). Therefore, with required policy compliance, implementation of the Local Roadway Safety Plan, and City engineer review of specific design plans, impacts related to hazardous design features would be less than significant.

3.6.8.2 Significance of Impacts

Impacts related to hazardous design features would be less than significant.

3.6.8.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.6.9 Issue 4: Emergency Access

3.6.9.1 Impacts

The MEU includes policies to address emergency access and does not include any requirements that would result in inadequate emergency access. The MEU includes Policy ME 1.1, which ensures mobility decisions are consistent with the City's General Plan and other guiding documents, including the overarching vision to provide safe, accessible, and comfortable transportation for all modes of movement and all demographics. The MEU also includes several policies to be implemented by the City, which support the viability of multimodal transportation– thus supporting reductions in congestion supporting emergency access. These policies include Policy ME 3.6, Policy ME 3.7, Policy ME 4.3, and Policy ME 4.4, which support improvements to the City's pedestrian, bicycle, and micromobility network. The MEU also includes policies to be implemented by the City that encourage increased connectivity of multimodal transportation systems, such as Policy ME 4.12.

Future development in the City would be required to comply with all applicable City regulations related to emergency access including the California Fire Code, and MEU policies, and would require review by the City Fire Marshal to ensure that emergency access is provided. Future development in the City would implement the MEU with improvements potentially including traffic calming devices. While traffic calming can slow traffic down, the design and location of such features would be balanced with the need for emergency response. For example, General Plan Mobility Element Policy ME 5.3 contains a provision stating, "New traffic calming measures require approval of the City Traffic Engineer and City Fire Chief to ensure adequate emergency response pursuant to Fire Code Requirements." Therefore, the MEU includes an adequate policy framework to ensure mobility network improvements are balanced with emergency response needs. Therefore, impacts on emergency access would be less than significant.

3.6.9.2 Significance of Impacts

Impacts related to emergency access would be less than significant.

3.6.9.3 Mitigation Measures

Impacts would be less than significant. No mitigation is required.

3.6.10 Conclusion

Implementation of the MEU would be consistent with state, regional, and local policies regarding the transportation system and would support the implementation of Complete Streets, VMT reductions, coastal access, and active transportation. No policy inconsistencies have been identified; therefore, impacts related to transportation policy consistency would be less than significant.

Implementation of the MEU would result in less than significant impacts related to VMT due to VMT per capita not increasing at buildout compared to buildout of the existing mobility network. Furthermore, future implementation of capital projects consistent with the MEU is anticipated to be implemented by the City and/or a combination of public and private investments. Mobility improvements consistent with the MEU would be consistent with the City's policy framework and would result in less than significant impacts related to VMT.

Impacts related to hazards due to a design feature and emergency access would be less than significant due to the implementation of the MEU policy framework; City engineer review of future improvements proposed for consistency with the MEU; and required compliance with the Fire Code, General Plan, and City policies and guidelines.

4 OTHER CEQA REQUIRED TOPICS

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines identifies the subjects that shall be discussed in an environmental impact report (EIR) including effects determined not to be significant, significant and unavoidable impacts, significant irreversible environmental changes, and growth-inducing effects, as discussed in the following subsections.

4.1 Effects Determined Not To Be Significant

Section 15128 of the CEQA Guidelines states “an EIR shall contain a brief statement indicating reasons that various possible effects of a project were determined not to be significant and not discussed in detail in the EIR.” Effects determined not to be significant for the Project are summarized in this chapter. All other CEQA required environmental topics are addressed in Chapter 3.

4.1.1 Aesthetics

Scenic vistas and scenic resources, including trees and historic buildings, are located throughout the City. The urban streetscape currently includes street furniture, street trees, and lighting. The MEU establishes citywide and community-specific mobility-related goals and policies and network classifications for circulation element roadways within the City. As the MEU is a planning-level document, no specific projects or construction activities are proposed. Construction activities that could potentially occur to implement the mobility network proposed as part of the MEU could include, but are not limited to:

- Roadway improvements such as paving and restriping
- Facilities to support public transit (such as bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks)
- Facilities to support bicycle and micromobility (such as multi-use paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations)
- Facilities to support pedestrian travel such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping
- Other mobility-related improvement projects

According to the 2016 City of Encinitas Housing Element Update, the following roads are considered to be scenic highways and viewsheds:

- Saxony Road, from Leucadia Boulevard, north to La Costa Avenue
- Highway 101 from Encinitas Boulevard south to Santa Fe Drive
- El Camino Real from La Costa Boulevard south to Manchester Avenue
- Highway 101, La Costa Avenue, to South Carlsbad Beach
- La Costa Avenue, from just west of I-5 to El Camino Real
- Highway 101, from Encinitas Boulevard to La Costa Avenue
- Leucadia Boulevard, between Highway 101 and El Camino Real
- San Elijo Avenue (and Highway 101) south of Cardiff Beach State Park to Santa Fe Drive
- Manchester Avenue from San Elijo Avenue to Encinitas Boulevard
- I-5, crossing San Elijo Lagoon
- Rancho Santa Fe Road within Olivenhain
- Lone Jack Road from Rancho Santa Fe Road to Lone Hill Lane
- Santa Fe Drive from South Vulcan Avenue to El Camino Real

As stated above, the MEU is a planning-level document that establishes citywide and community-specific mobility-related goals and policies. Policies outlined in the MEU would ensure that the Project and future improvements would not result in aesthetic impacts. For example, Policy 1.1 ensures mobility decisions are consistent with the City's General Plan and other guiding documents and Policy 6.8 prioritizes community character preservation over development. Additionally, under the Project, roadway improvements would not cause impacts to existing scenic roadways and view corridors as all work would occur within existing public right-of-way. It is not anticipated that changes within existing rights-of-way would significantly impact a scenic vista, damage any scenic resources, change the visual character or quality of a particular area or transportation corridor, or substantially change the shading and lighting levels along a transportation corridor. Therefore, the Project would remain consistent with the City's General plan and would not significantly impact scenic resources and impacts would be less than significant. Aesthetic impacts would be less than significant.

4.1.2 Agriculture and Forest Resources

The updated MEU would be implemented within the existing public rights-of-way and, therefore, would not affect lands within an agricultural zone or subject to the Williamson Act contract. The existing right-of-way is defined as "Urban and Built-Up Land" by the California Important Farmland Finder (California Department of Conservation 2024). The California Important Farmland Finder defines "Urban and Built-Up Land" as land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Forest land and timberland are not

present within the designated public right-of-way or within the city. The Project would not convert forestland to non-forest uses, involve changes in the existing environment, or convert forest land to non-forest use. Therefore, no impact would occur.

4.1.3 Biological Resources

The proposed enhancements to the City's pedestrian facilities, bikeway system, transit network, and street network resulting from the Project would involve work within and adjacent to existing rights-of-way that have already been disturbed. The Project would be developed and implemented within the disturbed area within or adjacent to existing roadways and multimodal networks. Any facility associated with the MEU would be considered a minor improvement (i.e., bus stop), which would be placed adjacent to the mobility network within developed or disturbed areas. Therefore, proposed enhancements are not anticipated to affect biological resources, including riparian habitat, sensitive and migratory species, protected resources and tree preservation, and wildlife corridors. Future improvements would be subject to applicable regulatory requirements. Therefore, impacts to biological resources would be less than significant.

4.1.4 Cultural Resources and Tribal Cultural Resources

The proposed enhancements to the City's pedestrian facilities, bikeway system, transit network, and street network resulting from the Project would involve work within and adjacent to existing rights-of-way that have already been disturbed. Therefore, proposed enhancements are not anticipated to affect existing cultural, tribal cultural, or historic resources, as all work would occur within and immediately adjacent to existing rights-of-way. Minor rights-of-way would be acquired to implement the proposed enhancements. Traditional methods of construction for pedestrian facilities, bikeways, transit, and roadway improvements do not typically necessitate significant excavation. The proposed Project would involve minimal ground disturbance during construction in areas where the soil has already been disturbed as a result of the construction of the existing roadways; therefore, impacts on subsurface historical resources, cultural resources, archaeological resources, or human remains are not anticipated. In cases where excavation could go beyond previously disturbed soils, a site-specific review would be required as appropriate. If unexpected archaeological resources were encountered along the enhancement corridors, the City's standard procedure is to halt construction and require a qualified archaeologist to review the Project plans and, as appropriate, identify protective best management practices. Therefore, impacts on cultural resources and tribal cultural resources would be less than significant.

4.1.5 Energy

The Mobility Element, together with the other elements, comprises the City's General Plan and provides a long-term blueprint that guides transportation decision-making; plans for diverse modes and mobility options; envisions future mobility improvements; and includes goals, policies, and multimodal networks. The proposed update to the MEU is intended to improve the safety, interconnectivity, accessibility, and comfort of all multimodal corridors within existing rights-of-way.

The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources as the Project is a planning-level document. Regarding long-term energy consumption, no new permanent source of energy demand would result from project implementation. The MEU incentivizes

Electric Vehicles (EV's) under policies 6.5 and 6.6, which aim to encourage EV usage. Additionally, implementation of the MEU would not result in an increase in VMT and therefore, would not obstruct a state or local plan for renewable energy or energy efficiency. Therefore, energy impacts would be less than significant.

4.1.6 Geology and Soils

According to the California Department of Conservation, the Planning Area is not within a known earthquake fault or the Alquist-Priolo Fault Hazard Zones, a liquefaction zone, or a landslide zone. The nearest known faults are Newport-Inglewood Fault and the Rose Canyon Fault, which are approximately 5 miles away (California Department of Conservation). Implementation of the proposed enhancements would involve work within or immediately adjacent to existing street rights-of-way. The design and construction of any structures associated with pedestrian, bikeway, transit, and street improvements would conform to applicable codes, including the California Building Code seismic standards and other codes, as determined by the City to reduce the risk and hazards (e.g., ground shaking, liquefaction, settlement, and subsidence) associated with seismic events and unstable soils.

With respect to unique paleontological resources or sites, there are two sites identified within the planning area with moderate risk to paleontological resources (Del Mar Formation and Torrey Sandstone). Each future project site would be screened for paleontological resources including applying Policy 7.2 of the General Plan Resource Management Element aimed at protection of paleontological resources. It is important to note, however, that improvements under the Project would be within the existing ROW and unique paleontological resources would be located below the depth of expected soils disturbance. Therefore, the Project would not impact paleontological resources and impacts to geology and soils would be less than significant.

4.1.7 Hazards and Hazardous Materials

The proposed enhancements would be developed within or immediately adjacent to existing rights-of-way and would require minimal acquisition of surrounding properties. These enhancements would include the development of bicycle and transit lanes, and other street improvements to address pedestrian needs and safety and improve the through movement of vehicular traffic. Construction of any facilities associated with pedestrian, bikeway, transit, and street improvements consistent with the MEU would involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. However, all hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with federal Occupational Safety and Health Administration (OSHA) and California OSHA standards and other applicable regulations. Operation of the proposed enhancements would not result in emissions or release of hazardous materials beyond existing conditions. During subsurface work, unexpected, contaminated soils could be encountered; any such soils would be evaluated and handled in accordance with applicable regulations.

The Project is not within an ALUCP Safety zone, and the nearest airport is the McClellan-Palomar Airport located approximately 2.5 miles northeast of the Planning Area in the city of Carlsbad. The Project would not result in a safety hazard or excessive noise for people residing or working in the project area. Additionally, the MEU includes policies to address emergency access and does not include any requirements that would result in inadequate emergency access. The MEU includes Policy ME 1.1

that ensures mobility decisions are consistent with the City's General Plan and other guiding documents, including the overarching vision to provide safe, accessible, and comfortable transportation for all modes of movement and all demographics. According to the California Department of Forestry and Fire Protection Fire Hazard Severity Zones online interactive map, the Project is not in a "very high/high/moderate" fire hazard severity zone. Therefore, people or structures would not be exposed to a significant risk of loss, injury, or death involving wildland fires and impacts related to hazards and hazardous materials would be less than significant.

4.1.8 Hydrology and Water Quality

The proposed enhancements include future development of bicycle and transit lanes and other street improvements to address pedestrian needs and safety and improve the through movement of vehicular traffic. As previously described, the Project segments are located within existing public rights-of-way in an urbanized environment. Construction activities associated with these enhancements could include minor earth moving; maintenance and operation of construction equipment; and handling, storage, and disposal of materials that may contribute to pollutant loading in stormwater runoff. However, with conformance to applicable local and regional regulations and requirements concerning stormwater discharge, and implementation of source control and treatment best management practices, the proposed enhancements would minimize or eliminate the discharge of potential pollutants from stormwater runoff to the maximum extent practicable. In addition, the proposed enhancements would be implemented in areas currently developed with paved asphalt streets and sidewalks. Consequently, these enhancements would not measurably change the volume of stormwater runoff. Since the proposed enhancements would be located within or immediately adjacent to existing rights-of-way, they would not increase the amount of area, or the number of structures subjected to flooding or inundation. Therefore, impacts on hydrology and water quality would be less than significant.

4.1.9 Mineral Resources

The enhancement corridors consist of existing streets located in developed, urbanized areas of the city. These corridors would continue to be used for transportation under the proposed Project. Accordingly, the proposed enhancements 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 or 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. Therefore, no impact would occur.

4.1.10 Population and Housing

The Project would provide for, expand, and sustain a mix of transportation modes that meet the existing and future transportation needs of all Encinitas residents and visitors; and minimize impacts on the community and environmental character. The MEU would not induce substantial unplanned population growth. Through updated goals and policies, the MEU would help accommodate future city growth. Future proposed projects are anticipated to improve connectivity throughout the city and would not displace substantial numbers of existing people or housing. Therefore, no impact would occur.

4.1.11 Recreation

As discussed in Section 4.4, the proposed enhancements would not induce population growth. No residential uses would be developed under the proposed Project. The proposed enhancements would not include the construction or expansion of recreational facilities or contribute to a need that would necessitate the development of parks or other recreational facilities. The proposed enhancements could increase the use of existing neighborhood and regional parks and other recreational facilities including bicycle facilities. However, any increase in the use of existing parks and recreation facilities would occur throughout the city and would not be concentrated on any particular facility. Therefore, impacts on recreation would be less than significant.

4.1.12 Utilities and Service Systems

The proposed enhancements would include developing bicycle and transit lanes and other street improvements to address pedestrian needs and safety and improve the through movement of vehicular traffic. The proposed enhancements would not connect to the public water, stormwater or sewer systems. Accordingly, these enhancements would not require or result in the construction of new water, wastewater treatment, or stormwater drainage facilities or expansion of existing facilities. The proposed enhancements would not generate any solid waste. Therefore, impacts on utilities and service systems would be less than significant.

4.1.13 Wildfire

According to the California Department of Forestry and Fire Protection Fire Hazard Severity Zones online interactive map, the Project area is near, but not within a very high, high, or moderate fire hazard severity zone. Since the Planning Area is not located in state responsibility areas or lands classified as very high fire hazard severity zones, the Project would not impair an emergency response plan, expose Project occupants to pollutant concentrations from wildfire, require infrastructure that may exacerbate fire risk or result in temporary or ongoing impacts to the environment, or expose people or structures to risk as a result of runoff, post-fire slope instability, or drainage changes. Therefore, impacts due to wildfire would be less than significant.

4.1.14 Mandatory Findings of Significance

The proposed enhancements would not 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, reduce the number of or restrict the range of a rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory. These enhancements would not have impacts that are individually limited, cumulatively considerable, or cause substantial adverse effects on human beings, either directly or indirectly.

4.2 Significant and Unavoidable Impacts

This section is prepared in accordance with Section 15126.2(c) of the CEQA Guidelines, which requires the discussion of any significant environmental impacts that cannot be avoided if a project is implemented. Pursuant to the analysis in Chapter 3.0, Environmental Analysis and Chapter 5.0, Cumulative Impacts, all impacts would be less than significant.

4.3 Significant Irreversible Environmental Changes

Section 15126.2(d) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes caused by a project. Specifically, Section 15126.2(d) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if any of the following would occur:

- The primary and secondary impacts would generally commit future generations to similar uses.
- The project would involve a large commitment of nonrenewable resources.
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project.
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

The proposed Project would involve modifications to the existing transportation networks to allow for mobility improvements. The implementation of these improvements would require relatively little use of resources. Although the multimodal improvements would increase vehicle delay in some areas of the city, the proposed Project would result in lower VMT and less fuel consumption. Therefore, the proposed Project would not result in a significant increase in the use of fossil fuels. The amount and rate of consumption of these resources would not result in significant environmental impacts related to the unnecessary, inefficient, or wasteful use of resources.

4.4 Growth Inducing Impacts

Growth-inducing impacts are characteristics of a project that could directly or indirectly foster economic or population growth or the construction of additional housing in the surrounding environment. Such projects include those that would remove obstacles to population growth (e.g., a major expansion of a wastewater treatment plant). Increases in the population may tax existing community service facilities and require the construction of new facilities that could cause significant environmental effects.

The MEU would provide a long-term blueprint that guides transportation decision-making; plans for diverse modes and mobility options; envisions future mobility improvements; and includes updated goals, policies, and multimodal networks. Development that could occur as a result of Project implementation could include roadway improvements such as paving and restriping; facilities to support public transit (e.g., bus lanes, transit priority signal systems, managed curb space, passenger shelters, and transportation kiosks); facilities to support bicycle and micromobility (e.g., as multi-use

paths, lanes, signals, loop detectors, parking, and other infrastructure and operational accommodations); and facilities to support pedestrian travel (e.g., such as crossings, signals, sidewalks, paths, plazas, furniture, signage, and landscaping). The Project would not change any of the land use or zoning designations within the Planning Area to allow for increased density or unplanned development and thus would not increase the San Diego Association of Governments' (SANDAG's) growth projections. The proposed Project would not add substantial capacity that would induce population growth or remove impediments to growth. Therefore, the proposed Project is not anticipated to induce a substantial increase in population.

5 CUMULATIVE IMPACTS

This section addresses cumulative impacts associated with implementation of the Mobility Element Update (MEU; Project) of the City of Encinitas General Plan. California Environmental Quality Act (CEQA) Guidelines Section 15355 defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Section 15355 further states that cumulative impacts can result from individually minor but collectively significant projects taking place over a period.

Section 15130(a) of the CEQA Guidelines requires a discussion of cumulative impacts of a project “when the project’s incremental effect is cumulatively considerable.” Cumulatively considerable, as defined in Section 15065(a)(3), “means that the incremental effects of an individual 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.”

According to Section 15130(b) of the CEQA Guidelines, the discussion of cumulative effects “...need not provide as great a detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness...” The evaluation of cumulative impacts is to be based on either (a) “a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those impacts outside the control of the agency,” or (b) “a summary of projections contained in an adopted local, regional, or statewide plan or related planning document, that describes or evaluates conditions contributing to the cumulative effect... Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency” (CEQA Guidelines Section 15130(b)(1)). Pursuant to Section 15130(d), cumulative impact discussions may rely on previously approved land use documents such as general plans, specific plans, and local coastal plans, which may be incorporated by reference. The methodology and cumulative scope of analysis is summarized in Section 5.1 and additional discussion of the cumulative methodology is detailed in the cumulative analysis for each issue.

5.1 Cumulative Analysis Setting and Methodology

The San Diego Association of Governments (SANDAG) estimates anticipated growth for the 18 cities and the unincorporated areas within San Diego County for the purpose of allocating growth to specific areas and identifying regional transportation infrastructure needed to support regional growth.

5.1.1 Plans and Programs Evaluated for Determination of Cumulative Impacts

Multiple federal, State, and local planning documents and programs were used to evaluate the MEU's contribution to cumulative impacts. These plans and programs are discussed under the Regulatory Framework subsections throughout Chapter 3.0. Highlighted below are regional and local plans and programs relied upon for the cumulative impact evaluation.

5.1.1.1 San Diego Forward: The 2021 Regional Plan (San Diego Forward) December 2021

San Diego Forward combines and updates the region's two big-picture planning documents: the Regional Comprehensive Plan and the Regional Transportation Plan/Sustainable Community Strategy. San Diego Forward provides a vision for the region's growth through the year 2050. The plan reflects a strategy for a more sustainable future.

5.1.1.2 City of Encinitas General Plan

The City's General Plan serves as a blueprint for physical development and contains goals and policies that aim to maintain the City's character, provide a balance of land uses and services, and preserve environmentally sensitive areas.

5.1.1.3 City of Encinitas Municipal Code

Multiple chapters were relied upon in the evaluation of impacts, including the following:

- Volume II, Titles 20-30 of the City's Municipal Code, which contains the primary zoning implementation and regulatory ordinances aimed at the classification and regulation of land uses throughout the City.
- The Natural Resources Overlay Zone, applying to areas within the Special Study Overlay Zone where site-specific analysis indicates the presence of sensitive cultural, historic, and biological resources, including sensitive habitats.

5.1.1.4 North County Multiple Habitat Conservation Program

Coordinated through SANDAG, the Multiple Habitat Conservation Program (MHCP) is one of three subregional habitat conservation planning programs in the region that, together, contribute to a coordinated preserve system for the San Diego region. The MHCP is a comprehensive conservation planning process that addresses the needs of multiple plant and animal species in northwestern San Diego County.

5.1.2 Projects Evaluated for Cumulative Impacts (Near-Term)

5.1.2.1 The North Coast Highway 101 Streetscape Improvement Project

The North Coast Highway 101 Streetscape Improvement Project includes streetscape, pedestrian, circulation, traffic management, and parking improvements along a 2.5-mile segment of North Coast Highway 101 between A Street and La Costa Avenue. These improvements would alter traffic conditions in the area and potentially combine with the traffic effects of the Project, primarily by providing improvements to support reductions in vehicle miles traveled (VMT) per capita.

5.1.2.2 El Camino Real Specific Plan

The El Camino Real Specific Plan (ECRSP) provides a regulatory framework to guide future site-specific development and improvements within the commercial corridor to support revitalization of the Specific Plan Area (SPA) through implementation of streetscape improvements, and objective design standards that would ensure future site-specific development and redevelopment achieve the land use vision and design objectives intended for the SPA and for housing that may be proposed through State legislation. A Zoning Code Amendment, General Plan Amendment, and Local Coastal Plan Update is required to reflect the adoption of the ECRSP.

5.1.2.3 Climate Action Plan Update

The City's Climate Action Plan (CAP) provides a roadmap for reducing GHG emissions through the implementation of various targets, goals, strategies, and measures. The CAP set an ambitious target to reduce emissions by 44% below 2012 levels by 2030. As outlined in the 2018 CAP, the City committed to updating the CAP every five years. The CAP update is in process and will involve the development of an updated baseline greenhouse gas emissions inventory and projection, updated emissions reduction targets, updated emission-reduction goals, and revised or additional measures, as warranted. The City is proposing a 40% reduction in 2016 GHG emission levels by 2030 and an 85% reduction in 2016 GHG emission levels by 2045.

5.1.2.4 Mature Tree Preservation Policy

On December 8, 2021, City Council directed staff to develop objective standards to preserve significant mature trees. Accordingly, City staff has been working to prepare a mature tree preservation policy. Key aspects of the policy include the following:

- Defining a "Mature Tree"
- Developing Mitigation Strategies for Mature Tree Removal
- Developing Standards for Replacement Ratio/Size/Type
- Providing Incentives to Preserve Mature Trees

5.2 Cumulative Effect Analysis

5.2.1 Air Quality

As defined in Section 15130 of the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probably future projects within the cumulative impact area for air quality. Air quality impacts are inherently a cumulative impact because air quality is affected by all pollutant sources in the basin; therefore, the cumulative study area would be considered the San Diego Air Basin (SDAB).

The evaluation of project consistency with the Regional Air Quality Standards (RAQS) is a cumulative analysis by nature because it considers a project's consistency with a regional air quality plan that relies on the land use plans of jurisdictions within the SDAB. As discussed in Section 3.1.5 of Chapter 3, the Project would be consistent with the SANDAG growth projections used to develop the RAQS. Additionally, the MEU contains goals and policies to reduce congestion, thereby improving air quality, and would result in a decrease in VMT compared to VMT with buildout of the existing mobility plan. Therefore, the Project would not obstruct or conflict with implementation of the RAQS, and cumulative impacts would be less than significant.

With regards to emissions of criteria pollutants, as discussed in Section 3.1.6, representative construction emissions would be less than the applicable thresholds for all criteria pollutants. As the individual project thresholds are designed to help achieve attainment with cumulative basin-wide standards, they are also appropriate for assessing the Project's contribution to cumulative impacts. Therefore, because emissions would be less than the individual project-level thresholds, and because all projects are required to adhere to existing regulations, Project construction would not result in a cumulatively considerable net increase of any non-attainment criteria pollutant, and impacts related to construction emissions would be less than significant. The Project would result in a decrease in VMT and associated operational air quality emissions when compared to the no-Project condition, due to a mobility network that supports multimodal transportation. The analysis of operational emissions is cumulative in nature because the traffic assumptions used in the analysis include cumulative traffic associated with regional growth. Therefore, the Project would not result in a cumulatively considerable net increase of any non-attainment criteria pollutant during operation.

Construction diesel particulate matter emissions, carbon monoxide (CO) hot spots, and odors are generally localized impacts that do not have regional or cumulative considerations. Due to the limited scope and duration of construction activities required for mobility improvements, the limited amount of time equipment would be located adjacent to any specific sensitive receptor, and the implementation of the In-Use Off-Road Diesel-Fueled Fleets Regulation, potential construction activities associated with implementation of the Project would not expose sensitive receptors to substantial pollutant concentrations. The Project is also not anticipated to result in a CO hotspot or generate odors that affect a substantial number of people.

Therefore, the incremental effects of the Project, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

5.2.2 Greenhouse Gas Emissions and Climate Change

As defined in Section 15130 of the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for greenhouse gas (GHG) emissions. The issue of global climate change is inherently a cumulative issue, as GHG emissions of individual projects cannot be shown to have a material effect on global climate change. Impacts would be cumulative in nature if they lead to a substantial increase in GHG emissions, when combined with other developments.

As discussed, the framework for assessing GHG emissions in the state has been created through Assembly Bill (AB) 32, Senate Bill (SB) 32, Executive Order (EO) S-3-05, and the 2017 and 2022 Scoping Plans. Local GHG emissions are addressed through San Diego Forward, the City's General Plan/Local Coastal Program, the Climate Action Plan (CAP), the Active Transportation Plan, and the Modal Alternatives Project. If a project demonstrates that it is sufficiently reducing its overall GHG emissions consistent with statewide goals, the project's impact can be determined not to be cumulatively considerable as it would contribute to the state's GHG emission reduction targets. As discussed in Section 3.2.5 of Chapter 3, the Project would result in a less-than-significant impact related to construction GHG emissions. Further, regional GHG emissions would decrease compared to both baseline year 2016 conditions and a year 2050 no-Project condition. Therefore, the Project would result in a less-than-significant cumulative impact related to generating GHG emissions.

Additionally, as discussed in Section 3.2.6, the Project would be consistent with all State, regional, and local GHG-reduction plans including the 2017 and 2022 Scoping Plans, San Diego Forward, and the City's CAP. The Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs.

Therefore, the incremental effects of the Project, in combination with projected growth, would not be cumulatively considerable, and the cumulative impact would be less than significant.

5.2.3 Noise and Vibration

As defined in Section 15130 of the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for noise. The analysis of vehicle traffic noise provided in Section 3.3.7 is cumulative in nature because the traffic assumptions used in the analysis include cumulative traffic associated with regional growth. The analysis considers noise impacts associated with the anticipated year 2050 growth within the region and incorporates the proposed roadway reclassifications that would result in a change in daily roadway segment volumes to accommodate this future growth. The Project would not introduce new land uses. As discussed in Section 3.3.7, compared to baseline year 2016 noise levels, the Project's buildout would result in an estimated cumulative change in noise levels of 2.6 dB or less. Therefore, the Project's cumulative vehicle noise impacts would be less than significant.

Construction activities associated with mobility-related improvement projects would require equipment that would generate noise and ground-borne vibration. Construction noise and vibration are generally localized impacts that do not have regional or cumulative considerations. Adherence to

Section 9.32.410 of the City's Municipal Code would avoid or reduce construction noise and vibration impacts. Future improvement projects would be subject to CEQA evaluation, and any necessary project-specific noise-reduction strategies would be developed at that time. Impacts would be less than significant.

Therefore, the incremental effects of the Project, in combination with projected growth, would not be cumulatively considerable, and the cumulative noise impact would be less than significant.

5.2.4 Land Use and Planning

As defined in Section 15130 of the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for land use.

With regards to physical division of a community, as discussed in Section 3.4.6., the MEU does not propose to expand, extend, or change the width of any existing roadways within the City. Therefore, because no new connections would be established that would potentially cause the physical division of an established community, implementation of the Project would not contribute to a cumulative impact related to physical division of community. The Project would not result in a cumulatively considerable impact related to the physical division of the community.

As detailed in Section 3.4.7, the MEU was assessed for impacts related to conflicts with any land use plan, policy, or regulation adopted for the purposes of avoiding or mitigating an environmental effect. The MEU was assessed for consistency with State plans and policies, including the Complete Streets Act and SB 743, regional plans and policies, including San Diego Forward, and local plans, including the Local Coastal Program and adopted General Plan. It was concluded that implementation of the MEU would result in less-than-significant environmental impacts associated with conflicts with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The MEU would be consistent with applicable plans and policies adopted for the purpose of avoiding or mitigating an environmental effect and there are no known cumulative projects that would be inconsistent with applicable plans or policies potentially contributing to a cumulative impact.

Implementing MEU Policy 3.1 would ensure subsequent projects within the City address consistency with the Land Use and Housing Element by ensuring the mobility system accommodates planned growth including areas identified in the Land Use Element, Housing Element, and adopted specific plans. Therefore, the incremental effects of the Project, in combination with projected growth elsewhere in the cumulative study area, would be less than cumulatively considerable, and the cumulative impact would be considered less than significant.

5.2.5 Public Services and Facilities

As defined in Section 15130 of the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probably future projects within the cumulative impact area for public services and facilities. The cumulative study area would be considered the City.

The increase in demand for public services and facilities are typically a result of an increase in growth and the construction of new buildings. As detailed in Section 3.5.5, as the MEU is a policy document that does not induce growth and does not propose the construction of new public service facilities, there would be a less-than-significant impact related to adverse physical impacts on the environment associated with the need for new public service facilities or the need for new or physically altered public facilities.

Subsequent projects implemented in accordance with the MEU must adhere to the General Plan policies related to the avoidance of environmental impacts and must comply with applicable development regulations that are intended to address the demand for public services that result from development. As population growth occurs in the City and the need for new facilities is identified, any future construction of public facilities would be subject to separate environmental review at the time design plans are available. Therefore, impacts would be less than significant, and no mitigation is required.

Therefore, the incremental effects of the Project, in combination with projected growth within the City, would not be cumulatively considerable, and the cumulative impact would be less than significant.

5.2.6 Transportation and Circulation

As defined in Section 15130 of the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probably future projects within the cumulative impact area for transportation and circulation. For this issue, a cumulative impact would occur if buildout consistent with the MEU, coupled with the growth of neighboring jurisdictions, including growth anticipated under the 2021 Regional Plan and the ECRSP, would result in increases in VMT. In addition to the plan projections, implementation of the Highway 101 Project is considered as a cumulative project.

As detailed in Chapter 3.6, Transportation and Circulation, implementation of the MEU would not result in a significant impact to transportation and circulation. Overall City VMT per capita is estimated to be higher than the regional average without the Project. As detailed in the City's VMT Guidelines (Appendix E; City of Encinitas 2023b), the City is considering programmatic VMT mitigation strategies to provide a mechanism to reduce individual project VMT, which would support City-wide reductions in VMT per capita. On a project-by-project basis, as individual discretionary development projects are proposed that identify a significant VMT impact, feasible mitigation measures would be required to support reductions in VMT. As detailed in Section 3.6.2.3, the City's VMT Guidelines identify screening levels and significance thresholds for transportation impacts under CEQA related to VMT for discretionary/entitlement projects.

The City's significance thresholds and specific VMT metrics used to measure VMT impacts by land use type are identified below:

- Residential: 15% below the existing City-wide average.
- Employment (includes all employment types: office, commercial, hotel, industrial): At or below the regional average.
- Mixed-Use: Each project component is evaluated per the appropriate metric based on land use type (e.g., residential, employment, and retail).
- Regional Retail, Regional Recreational, or Regional Public Facilities: A net increase in total regional VMT using the boundary method (City of Encinitas 2023b).

If an individual project is not screened out from the requirement for a VMT analysis or does not meet one of the above thresholds of significance, a significant VMT impact would result. Individual development projects in the City would need to ensure VMT is reduced to a less than significant impact, to the extent feasible, to support citywide VMT reductions and implementation of the MEU policy framework. The Project, consistent with the MEU framework, would not increase trip generation in the Planning Area, but instead would reclassify roadways to accommodate future growth. Future multimodal transportation improvements would not contribute to the cumulative VMT impact identified for City buildout, and future cumulative development that supports the implementation of the MEU network would likewise reduce VMT. Furthermore, the VMT per capita with the proposed MEU would not increase above the projected VMT per capita for the existing mobility network. As a result, the Project would decrease VMT, and future VMT impacts would result in a less than cumulatively considerable impact relative to transportation and circulation.

6 PROJECT ALTERNATIVES

California Environmental Quality Act (CEQA) Guidelines, Section 15126.6, requires that an environmental impact report (EIR) describe a reasonable range of alternatives to a project or to the location of the project that could feasibly avoid or lessen significant environmental impacts while substantially attaining the basic objectives of the project. An EIR should also evaluate the comparative merits of the alternatives. This chapter sets forth potential alternatives to the proposed Mobility Element Update (MEU; Project) and provides a qualitative analysis of each alternative and a comparison of each alternative to the proposed Project. Key provisions of the CEQA Guidelines pertaining to the alternatives analysis are summarized as follows:

- The discussion of alternatives shall focus on alternatives to the project that include alternative locations that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede, to some degree, the attainment of the project objectives or would be more costly.
- The No Project Alternative shall be evaluated along with its potential impacts. The No Project Alternative analysis shall discuss the existing conditions at the time the Notice of Preparation is published, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.
- If the project is other than a land use or regulatory plan, for example, a development project on an identifiable property, the No Project Alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against the environmental effects that would occur if the project is approved.
- The range of alternatives required in an EIR is governed by a “rule of reason.” Therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of a proposed project.
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

The range of feasible alternatives is selected and discussed in a manner intended to foster meaningful public participation and informed decision-making. Among the factors that may be considered when addressing the feasibility of alternatives (as described in CEQA Guidelines Section 15126.6[f][1]) are environmental impacts, site suitability, economic viability, availability of infrastructure, City of Encinitas General Plan consistency, regulatory limitations, jurisdictional boundaries, and whether the proponent could reasonably acquire, control, or otherwise have access to the alternative site.

An EIR must briefly describe the rationale for selecting and rejecting alternatives. The lead agency may make an initial determination as to which alternatives are feasible and, therefore, merit in-depth consideration. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet project objectives, are infeasible, or do not avoid any significant environmental effects.

6.1 Project Impacts

As described in Chapter 3.0, the Project would result in less than significant impacts on air quality, greenhouse gas emissions, land use and planning, noise and vibration, public services and transportation and circulation. No significant and unavoidable impacts have been identified.

6.2 Project Objectives

In accordance with CEQA Guidelines Section 15124, the following primary objectives support the purpose of the Project, assist the lead agency in developing a reasonable range of alternatives to be evaluated in this Program Environmental Impact Report, and ultimately aid decision-makers in preparing findings and overriding considerations. The primary objective of the Project is to address the mobility needs of the City and to meet the requirements of state law.

The Project objectives are as follows:

1. Improve the safety, interconnectivity, accessibility, and comfort of all multimodal corridors to maximize the number of trips made by foot, transit and microtransit, micromobility, and bicycle to schools, parks, neighborhoods, the coast, and shopping areas.
2. Provide for, expand, and sustain a mix of transportation modes that meet the existing and future transportation needs of all Encinitas residents and visitors, and minimize impacts to the community and environmental character.
3. Promote a long-term, coordinated program that provides standards and direction for improvements to the public right-of-way to enhance the identity of specific areas and create street design solutions to accommodate all modes of travel.
4. Update existing classifications within the Mobility Element so that the Encinitas circulation network responds to the present and future circulation needs of all users.
5. Consolidate existing and new policies in its various mode-specific, strategic plans—including the Climate Action Plan, Modal Alternatives Plan, Rail Corridor Cross Connect Implementation Plan, and the Active Transportation Plan—into one cohesive citywide framework.

6.3 Alternatives Considered but Rejected

6.3.1 Frontage Road Proposal

On August 8, 2022, City staff presented the concept of frontage roads along the El Camino Real Specific Plan corridor to the El Camino Real Task Force. The proposed frontage road concept included two vehicular travel lanes in each direction, a planted center median with left-turn pockets, and planted medians outside the four primary travel lanes, which would create physically separated frontage roads in each direction. The frontage roads included one vehicular travel lane with Class 3 bicycle sharrows and parallel vehicular parking. Beyond the frontage roads, pedestrian sidewalks were proposed. The frontage road concept would have reduced vehicular speeds and promoted alternate modes of transportation along the corridor.

After deliberation, the Task Force rejected the frontage road concept due to potential transportation impacts to nearby businesses. The Task Force determined that the design would result in a loss of businesses along the corridor. The Task Force unanimously expressed support for the alternative design, similar to the existing conditions along the El Camino Real Corridor. Therefore, the Frontage Road Proposal was not considered.

6.4 Alternatives Considered

Given that the Project is composed of numerous improvements throughout the City, it is not reasonable to separately evaluate alternatives to each proposed improvement or corridor. Rather the MEU is evaluated as a package of improvements. The proposed Project represents the high end of the range of improvements (the most amount of change compared to existing conditions), a comprehensive package of enhancements with the most intervention to the roadway system. On the lowest end of the alternative range of mobility improvements (the least amount of change from existing conditions) is the No Project/Adopted Plan Alternative, which represents reasonably foreseeable development if the MEU was not implemented. The Existing Right-of-Way Alternative considered in the EIR represents the middle of the alternative range (a medium level of change from existing conditions) that evaluates a set of moderate mobility improvements representing a relatively low level of intervention to the roadway system.

6.4.1 Alternative 1: No Project/Adopted Plan Alternative

As required by Section 15126.6 (e)(3)(B) of the CEQA Guidelines, under the No Project/Adopted Plan Alternative, the MEU would not be adopted, and mobility and circulation in the Planning Area would continue to occur in accordance with the existing Mobility Element. The No Project Alternative allows decision-makers to compare the impacts of approving the proposed Project with the impacts of not approving the proposed Project. The No Project Alternative includes “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services” (CEQA Section 15126.6 [e][2]).

The San Diego Association of Governments (SANDAG) Regional Plan 2050 forecast was used to create the future baseline environment that represents the No Project Alternative. The baseline year of 2016 was used for existing conditions input data and vehicle miles traveled (VMT) was calculated with the 2050 forecast. The network properties, such as functional classification of roadways, number of lanes,

roadway speed, types of median, were checked against and modified to match the currently adopted 1989 Circulation Element and 2021 SANDAG Regional Plan (DS41) before running the 2050 Adopted (Without Project) scenario. The 2050 adopted scenario also included the land use assumptions for the City including the recently adopted Housing Element.

6.4.1.1 Analysis of Alternative 1: No Project/Adopted Plan Alternative

Air Quality

Both the Project and the No Project/Adopted Plan Alternative would result in similar construction emissions because both the Project and the alternative include future improvements to the existing circulation network. Similar-scale improvements may be implemented under either; therefore, no substantial reduction in construction emissions would result from implementation of the No Project/Adopted Plan Alternative.

Vehicle traffic is the main source of emissions associated with the buildout of a circulation network. As described in Section 3.6, buildout under the Adopted Plan would result in the same level of VMT as under the MEU (21.6 VMT per capita). One main goal of the MEU is to reduce automobile VMT and related impacts on air quality and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services. The MEU contains goals and policies to reduce congestion, thereby improving air quality. It is not possible to quantify the complete level of VMT reductions associated with implementation of the MEU at this level of analysis (such as the implementation of microtransit and bike facilities); therefore, the VMT and mobile-source emissions modeling only includes network changes that can be accounted for in the regional traffic model. Thus, it is likely that additional VMT and associated mobile-source emissions reductions would occur under the implementation of the MEU policy framework that would not occur under the no-Project condition. Therefore, the No Project/Adopted Plan Alternative would likely result in greater VMT; therefore, greater operational air quality impacts than the proposed Project.

Greenhouse Gas Emissions and Climate Change

As described under Air Quality, both the Project and the No Project/Adopted Plan Alternative would result in similar construction emissions, as both the Project and the alternative include future improvements to the existing circulation network. Similar-scale improvements may be implemented under either; therefore, no substantial reduction in construction emissions would result from implementation of the No Project/Adopted Plan Alternative.

Vehicle traffic is the main source of greenhouse gas (GHG) emissions, associated with the buildout of a circulation network. As described in Section 3.6, buildout under the Adopted Plan would result in the same level of VMT as under the MEU (21.6 VMT per capita). Mobile-source GHG emissions associated with the future year 2050 condition without and with implementation of the Project were calculated. Both future year 2050 conditions would decrease emissions compared to the baseline year 2016 condition.

One main goal of the MEU is to reduce automobile VMT and related impacts on GHG emissions and congestion by providing time-competitive alternatives to automobile travel, including public transit, cycling, micromobility, walking, and on-demand mobility services. The MEU contains goals and policies to reduce congestion, thereby reducing GHG emissions. It is not possible to quantify the complete level

of VMT reductions associated with implementation of the MEU at this level of analysis (such as implementation of microtransit and bike facilities); therefore, the VMT and mobile-source GHG emissions modeling only includes network changes that can be accounted for in the regional traffic model. Thus, it is likely that additional VMT and associated mobile-source emissions reductions would occur under the implementation of the MEU policy framework that would not occur under the no-Project condition. Therefore, the No Project/Adopted Plan Alternative would likely result in greater VMT; therefore, greater operational GHG emissions impacts than the Project.

Noise and Vibration

Both the Project and the No Project/Adopted Plan Alternative would result in similar construction impacts, as both the Project and the alternative include future improvements to the existing circulation network. Similar-scale improvements may be implemented under either and; therefore, no substantial reduction in construction noise impacts would result from implementation of the No Project/Adopted Plan Alternative. Impacts would be similar to the Project.

Table 3.3-10 in Section 3.3, Noise and Vibration, shows a comparison of future year vehicular noise levels under both the MEU and Adopted General Plan (No Project) Alternative. Due to some roadway reclassifications under the MEU, future traffic volumes on circulation network roadways would change. Implementation of the MEU would result in decreased community noise equivalent levels along certain roadway segments as compared to the Adopted General Plan (No Project). Therefore, the No Project/Adopted Plan Alternative would result in incrementally greater operational noise impacts than the Project.

Land Use and Planning

Under the No Project/Adopted Plan Alternative, buildout would continue as prescribed by the Adopted General Plan. If the Project were not implemented, the Encinitas General Plan would fail to maintain a mobility system that accommodates the City's diverse needs and land uses including planned growth. Furthermore, the adopted Circulation Element would not implement State legislation and Regional Plans to the same extent as the Project. Therefore, the No Project/Adopted Plan Alternative would be less consistent with applicable plans and policies related to mobility. Impacts would be greater under the No Project/Adopted Plan Alternative as compared to the Project.

Public Services and Facilities

Like the Project, the No Project/Adopted Plan Alternative would provide a policy framework for future mobility projects within the city. This policy document does not induce growth in the city. Because neither the MEU nor the No Project/Adopted Plan Alternative would induce growth or include the construction of new buildings, implementation would not result in an increase in demand for public service facilities, including fire or police protection, or expanded school or park facilities. Furthermore, like the Project, the No Project/Adopted Plan Alternative would not remove or constrict the movement of emergency response vehicles within the city. Therefore, impacts on public services and facilities would be similar under both the Project and the No Project/Adopted Plan Alternative.

Transportation and Circulation

The current mobility network would lack the updated amenities to properly meet the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural,

suburban, or urban context of the General Plan (see **Figure 6-1**). Additionally, the VMT per capita in the City is projected to be the same under the buildout of both the adopted and proposed mobility networks, with an estimated 21.6 VMT per capita for both scenarios. In addition, the VMT per capita for the region would also remain the same in both scenarios at 18.5 VMT per capita. Since the VMT per capita with the proposed MEU would not increase above the projected VMT per capita for the existing mobility network, a significant VMT impact would not occur.

As described under Land Use, the Project is proposed to implement various legislative actions and plans including Complete Streets, Senate Bill (SB) 743, San Diego Forward - the Regional Plan, and the City's Climate Action Plan. The Project includes updates to the City's circulation network, along with goals and policies to provide time-competitive alternatives to automobile travel (e.g., public transit, cycling, micromobility, walking, and on-demand mobility services). The adopted network as part of the No Project/Adopted Plan Alternative would not provide the same facilities as the MEU; therefore, would result in greater impacts relative to mobility policy consistency.

6.4.2 Alternative 2: Existing Right-of-Way Alternative

The Existing Right-of-Way Alternative would implement mobility improvements identified in the MEU, but to a lesser extent and entirely within the existing public right-of-way. Alternative 2 was selected to provide an alternative with potentially fewer impacts on proximate sensitive receptors due to the reduced extent of construction limits. Long-term, the Existing Right-of-Way Alternative would establish improved mobility for all modes to accommodate the evolving community needs and new regulations in the region, although potentially to a lesser extent than the Project.

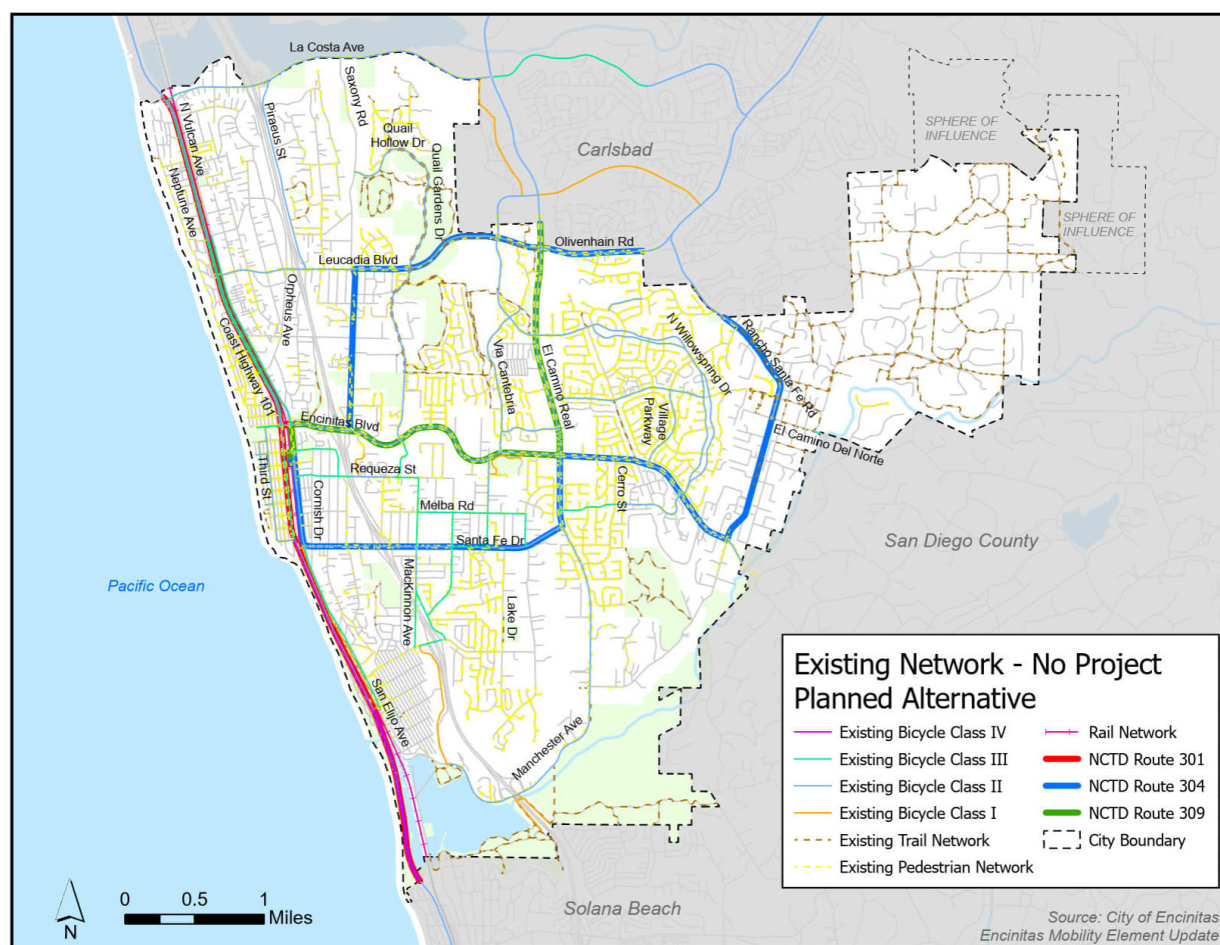
6.4.2.1 Analysis of Alternative 2: Existing Right-of-Way (ROW) Alternative

Air Quality

Both the Project and the Existing Right-of-Way Alternative would result in similar construction emissions, as both the Project and the alternative include future improvements to the existing circulation network. Similar-scale improvements may be implemented under either; therefore, no substantial reduction in construction emissions would result from the implementation of the Existing ROW Alternative and impacts would be similar.

The Existing ROW Alternative would include the same network as the Project, the only difference would be in the implementation and location or placement of certain facilities. Therefore, at the program level of analysis, it can be assumed that VMT and associated mobile-source emissions would be similar under both the Existing Right-of-Way Alternative and the Project.

Figure 6-1 Alternative 1 – No Project



Greenhouse Gas Emissions and Climate Change

Both the Project and the Existing Right-of-Way Alternative would result in similar construction emissions, as both the Project and the alternative include future improvements to the existing circulation network. Similar-scale improvements may be implemented under either; therefore, no substantial reduction in construction emissions would result from the implementation of the Existing Right-of-Way Alternative and impacts would be similar.

The Existing Right-of-Way Alternative would include the same network as the Project, the only difference would be in the implementation and location or placement of certain facilities. Therefore, at the program level of analysis, it can be assumed that VMT and associated mobile-source GHG emissions would be similar under both the Existing Right-of-Way Alternative and the Project.

Noise and Vibration

Both the Project and the Existing Right-of-Way Alternative would result in similar construction emissions, as both the Project and the alternative include future improvements to the existing circulation network. Similar-scale improvements may be implemented under either; therefore, no substantial reduction in construction emissions would result from implementation of the Existing Right-of-Way Alternative. However, the Existing Right-of-Way Alternative would require that all future improvements prescribed within the MEU be implemented within the existing right-of-way. No roadway widening would occur to construct bike lanes or other mobility-related facilities. Therefore, the limits of construction would be ensured to occur farther away from proximate sensitive receptors. The Existing Right-of-Way Alternative would reduce a potentially significant impact of the Project. Construction noise impacts under the Existing ROW Alternative would be less than those under the Project.

The Existing Right-of-Way Alternative would include the same network as the Project, the only difference would be in the implementation and location or placement of certain facilities. Therefore, at the program level of analysis, it can be assumed that roadway volumes and associated mobile-source noise would be similar under both the Existing Right-of-Way Alternative and the Project.

Land Use and Planning

Like the Project, the Existing Right-of-Way Alternative would develop and maintain a mobility system that accommodates the City's diverse needs and land uses including planned growth. It would complement regional and state mobility plans and work with the other elements of the Encinitas General Plan, particularly the Land Use Element, to plan for and accommodate the City's mobility needs into the future. Adoption of the Project or the Existing Right-of-Way Alternative would ensure the City's General Plan is consistent with recently adopted regulations that require Mobility Elements to include new policy and analysis per Government Code Section 65032(b). The Existing Right-of-Way Alternative would be consistent with SB 743 specifically by identifying a goal to reduce automobile VMT by providing time-competitive alternatives to automobile travel, including public transportation, bicycling, walking, micromobility, microtransit, and on-demand mobility services. Therefore, land use impacts under the Existing Right-of-Way Alternative would be similar to those of the Project.

Public Services and Facilities

Like the Project, the Existing Right-of-Way Alternative would provide a policy framework for future mobility projects within the city. This policy document does not induce growth in the city. Because neither the MEU nor the Existing Right-of-Way Alternative would induce growth or include the construction of new buildings, implementation would not result in an increase in demand for public service facilities, including fire or police protection, or expanded school or park facilities. Furthermore, like the Project, the Existing Right-of-Way Alternative would not remove or constrict the movement of emergency response vehicles within the city. Therefore, impacts to public services and facilities would be similar under both the Project and the Existing Right-of-Way Alternative.

Transportation and Circulation

Like the Project, the Existing Right-of-Way Alternative sets a long-term vision for Encinitas through the establishment of goals, multimodal networks, and supporting policies to accommodate the City's mobility needs into the future. Both the Project and the Existing Right-of-Way Alternative would guide transportation decision-making including plans for diverse modes and mobility options and future mobility improvements. Neither the Project nor the Existing Right-of-Way Alternative would conflict with any adopted transportation policies, plans, and programs including those supporting transit, bicycle, and pedestrian facilities. Proposed changes to the City's existing Circulation Element policies account for VMT thresholds per SB 743 and metrics such as safety, bicycle, and pedestrian level of comfort; and trips-by-mode share.

Like the Project, implementation of the Existing Right-of-Way Alternative would result in less than significant impacts related to VMT because VMT per capita would not increase at buildout compared to buildout of the existing mobility network. As individual development projects in the city are proposed, each individual project would need to ensure VMT is reduced to the extent feasible to support citywide VMT reductions and implementation of the MEU policy framework. Overall, implementation of the Existing Right-of-Way Alternative would be consistent with state, regional, and local policies regarding the transportation system and would support implementation of complete streets, VMT reductions, coastal access, and active transportation. Therefore, impacts on traffic and circulation would be similar under both the Existing Right-of-Way Alternative and the Project.

6.5 Environmentally Superior Alternative

Section 15126.6 of the CEQA Guidelines requires an “environmentally superior” alternative to be selected among the alternatives that are evaluated in the EIR. In general, the environmentally superior alternative is the alternative that would be expected to generate the fewest adverse impacts. If the No Project Alternative is identified as environmentally superior, then another environmentally superior alternative shall be identified among the other alternatives.

As described in this chapter, similar to the proposed Project, the alternatives would result in environmental impacts related to air quality, greenhouse gas emissions, noise and vibration, land use and planning, and transportation and circulation. The Project or the alternatives would not result in impacts on public services and facilities. **Table 6-1** presents a comparison of impacts. Although impacts anticipated under the Existing ROW Alternative would be similar to the Project, the alternative would result in an incrementally lower level of effect due to the lower intensity of physical changes and would result in lesser impacts on noise and vibration, than the Project. Therefore, the Existing ROW

Alternative is considered to be the environmentally superior alternative due to a lower level of environmental impact.

Table 6-1 Comparison of Project Alternatives				
Environmental Issue	Mitigation Measure	Project Impacts (Direct and Cumulative)	Alternative 1: No Project/ Adopted Plan	Alternative 2: Existing Right-of-Way Alternative
Air Quality	None	Less Than Significant Impact	Greater	Similar
Greenhouse Gas Emissions and Climate Change	None	Less Than Significant Impact	Greater	Similar
Noise and Vibration	None	Less Than Significant Impact	Greater	Less
Land Use and Planning	None	Less Than Significant Impact	Greater	Similar
Public Services and Utilities	None	Less Than Significant Impact	Similar	Similar
Transportation and Circulation	None	Less than Significant Impact	Greater	Similar

7 LIST OF ACRONYMS

A

AAQS	ambient air quality standard
ADA	Americans with Disabilities Act
AB	Assembly Bill
ATP	Active Transportation Plan

B

BAAQMD	Bay Area Air Quality Management District
BAU	business as usual

C

CARB	California Air Resources Board
CAAQS	California Ambient Air Quality Standards
CCC	California Coastal Commission
CCR	California Code of Regulations
DOC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
Caltrans	California Department of Transportation
CO Protocol	Caltrans Project-Level Carbon Monoxide Protocol
CalEEMod	California Emissions Estimator Model
CESA	California Endangered Species Act
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CalSTA	California State Transportation Agency
CTC	California Transportation Commission
CIP	Capital Improvement Program

CO	carbon monoxide
CSD	Cardiff School District
City	City of Encinitas
CAA	Clean Air Act
CWA	Clean Water Act
CAP	Climate Action Plan
CFR	Code of Federal Regulations
CNEL	community noise equivalent level
COPPS	Community Oriented Policing and Problem Solving
CPA	Community Planning Area

D

dB(A)	A-weighted decibel
dB	decibels
DPR	Department of Parks and Recreation
DPLU	Department of Planning and Land Use
DPW	Department of Public Works
DWR	Department of Water Resources
DPM	diesel-exhaust particulate matter
DOT	U.S. Department of Transportation

E

EV	electric vehicle
EMS	emergency medical services
EFMD	Encinitas Fire and Marine Safety Department
EUSD	Encinitas Unified School District
ESA	Endangered Species Act
EIR	Environmental Impact Report
EMFAC	Emissions Factor
EO	Executive Order
EPA	United States Environmental Protection Agency

F

FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FRTTP	Federal Regional Transportation Plan
FTA	Federal Transit Administration

G

GIS	geographic information system
GWP	Global Warming Potential
GHG	greenhouse gas

H

H&SC	California Health and Safety Code
Hz	hertz

I

IP	Implementation Plan
IPCC	Intergovernmental Panel on Climate Change
in/sec	inches per second
I-5	Interstate 5
IRP	Integrated Resource Plan
ITS	Intelligent Transportation Systems
ITE	Institute of Transportation Engineers

L

L_{eq}	1-hour equivalent noise level
LUP	Land Use Plan
LOC	level of comfort
LOS	level of service
LCP	Local Coastal Program
L_{pw}	sound power

M

MPO	Metropolitan Planning Organization
MEU	Mobility Element Update; also Project
MAP	Modal Alternatives Project

N

NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NAHC	Native American Heritage Commission
NO ₂	nitrogen dioxide
NCTD	North County Transit District

NOP	notice of preparation
NO _x	oxides of nitrogen
NCTD	North County Transit District
O	
OPR	Office of Planning and Research
OS	operating system
P	
Pb	lead
Project	Mobility Element Update; also MEU
PM ₁₀	particulate matter less than 10 microns
PM _{2.5}	particulate matter less than 2.5 microns
PPV	peak particle velocity
PEIR	Program Environmental Impact Report
PRC	Public Resources Code
R	
ROG	reactive organic gas
RAQS	Regional Air Quality Standards
RPS	Renewables Portfolio Standard
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
S	
SO _x	oxides of sulfur
ABM2+	SANDAG Series 15 Activity Based Model
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SANDAG	San Diego Association of Governments
SDUHSD	San Dieguito Union High School District
SB	Senate Bill
SLCP	Short-Lived Climate Pollutant
SCAQMD	South Coast Air Quality Management District
SOI	Sphere of Influence
SIP	State Implementation Plan
State MPO	State Metropolitan Planning Organization

SWPPP	Stormwater Pollution Prevention Plan
SWQMP	Stormwater Quality Management Plan
SGC	Strategic Growth Council
SO ₂	sulfur dioxide
SCS	Sustainability Communities Strategy
SSARP	Systematic Safety Analysis Report Program
T	
TCR	Tribal cultural resource
TAC	toxic air contaminants
TCM	transportation control measure
TDM	transportation demand management
TIA	transportation impact analysis
TIS	transportation impact study
U	
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
U.S. EPA	U.S. Environmental Protection Agency
USGS	United States Geological Survey
V	
VMT	vehicle miles traveled
VdB	vibration decibels
W	
WPO	Watershed Protection, Stormwater Management, and Discharge Control Ordinance
Z	
ZEV	zero-emission vehicle

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