

4.7 GREENHOUSE GAS EMISSIONS

4.7.1 Introduction

This section evaluates potential greenhouse gas (GHG) emissions impacts that could result from the implementing actions associated with the 2021-2029 Housing Element. The housing sites were evaluated in this Program EIR based on information available from the City of Newport Beach (City), where reasonably foreseeable, direct, and indirect physical changes in the environment could be considered.

The analysis of GHG emissions involves assessing the primary sources of GHGs, such as vehicle trips, energy demands for building heating, cooling, and power, and construction of new buildings and infrastructure. The analysis focuses on the key GHGs generated by human activities including carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). GHG emissions associated with the proposed Project have been estimated using the California Emissions Estimator Model (CalEEMod) Version 2021.1, consistent with the analysis of criteria pollutants in **Section 4.2: Air Quality**.

There are several unique challenges to analyzing GHG emissions and global climate change under CEQA. Impact analyses typically address local development projects or long-term land use plans that have local or regional impacts. In contrast, climate change presents the considerable challenge of analyzing the relationship between local activities and the resulting potential for a contribution to global environmental impacts, if any. Regarding global climate change, however, it is generally accepted that while the magnitude of global impacts is substantial, the contribution of traditional development projects or even major long-term land use plans is so small that direct project-specific significant impacts – albeit not cumulatively significant impacts – are unlikely.

Further, the approach to analysis of GHG emissions under CEQA is also fundamentally different from the approach to analysis of criteria pollutant emissions (refer to **Section 4.2: Air Quality**), in that air quality is linked to conditions in a particular air basin, which GHG emissions are a global issue regardless of the particular location of the emission source.

4.7.2 Regulatory Setting

Federal

U.S. Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency's (U.S. EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing federal Clean Air Act (CAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) constitute a threat to public health and welfare. Therefore, it is the Supreme Court's interpretation of the existing CAA and the U.S. EPA's assessment of the scientific evidence that form the basis for the U.S. EPA's regulatory actions.

The U.S. EPA is responsible for implementing federal policy to address global climate change. The federal government's early efforts have focused on public-private partnerships to reduce GHG intensity through energy efficiency, renewable energy, methane and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG reductions.

The U.S. EPA is required to regulate carbon dioxide and other GHGs as pollutants under Section 202(a)(1) of the federal Clean Air Act. The first step in implementing its authority was the Mandatory Reporting Rule that required inventory data collection commencing on January 1, 2010 with first reports due March 2011. Effective January 2, 2011, the U.S. EPA requires new and existing sources of GHG emissions of 75,000 tons per year to obtain a permit under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit Program.

Corporate Average Fuel Economy Program

The main federal regulatory program for automobiles is the Corporate Average Fuel Economy (CAFE) program, which has been in place since 1975. Under previous administrations, CAFE was the primary means of limiting mobile source carbon emissions. Rules finalized in 2012 put in place binding standards through Model Year 2021 and offered estimated standards through 2024. The federal light-duty vehicle standards were developed in two phases that harmonized with State standards through 2016 (Phase 1) and 2025 (Phase 2) and developed the first ever federal GHG standards for medium-duty and heavy-duty vehicles. At the time, the U.S. EPA estimated the new standards in this rule would reduce CO₂ emissions by approximately 270 MMT and save 530 million barrels of oil over the life of vehicles sold during the 2014 through 2018 model years.

However, in 2018, the U.S. EPA proposed a new, less-stringent set of standards called the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks. The SAFE Vehicles Rule would amend certain existing CAFE and tailpipe CO₂ emissions standards for passenger cars and light trucks and establish new standards, all covering model years 2021 through 2026. In December 2021, the U.S. EPA issued new GHG emissions standards for new passenger cars and light trucks for model years 2023 through 2026. The updated standards will result in avoiding more than three billion tons of GHG emissions through 2050.¹

State

The State has adopted a variety of regulations aimed at reducing the State's GHG emissions. While State actions alone cannot stop climate change, the adoption and implementation of this legislation demonstrates the State's leadership in addressing climate change. Key legislation and Executive Orders pertaining to the State's reduction targets are described below.

Assembly Bill 32 (AB 32) and Senate Bill 32 (SB 32) (California Global Warming Solutions Act)

AB 32 requires the California Air Resources Board (CARB) to reduce Statewide GHG emissions to 1990 levels by 2020. As part of this legislation, CARB was required to prepare a "Scoping Plan" that demonstrates how the State will achieve this goal. The Scoping Plan was adopted in 2011, and in it, local governments were described as "essential partners" in meeting the Statewide goal, recommending a GHG reduction level of 15 percent below 2005 to 2008 levels (depending on when a full emissions inventory is available) by 2020.

¹ U.S. Environmental Protection Agency. (2021) *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. Available at: <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions>. Accessed December 2023.

CARB released the 2017 Scoping Plan in November 2017. The 2017 Scoping Plan provides strategies for achieving the 2030 target established by EO B-30-15 and codified in SB 32 (40% below 1990 levels by 2030). The 2017 Scoping Plan recommends local plan-level GHG emissions reduction goals.

With SB 32, the California Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 12, 2022, CARB adopted a third update to the Scoping Plan. The 2022 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2022 Scoping Plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and support the Clean Power Plan and other federal actions.

AB 1279 (The California Climate Crisis Act)

AB 1279 establishes the policy of the State to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. AB 1279 requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO₂ removal solutions and carbon capture, utilization, and storage technologies.

CARB Scoping Plan

Adopted December 15, 2022, CARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high global warming potential (GWP); providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with recommendations to reduce GHGs and assist the State in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan is not regulatory, is not exhaustive, and does not include everything local governments can implement to support the State's climate goals. It focuses primarily on climate action plans (CAPs) and local authority over new residential development. It includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine

consistency with the 2022 Scoping Plan. CARB specifically states that Section 3 of Appendix D, which discusses land use plans and development projects, does not address land uses other than residential and mixed-use residential such as industrial. However, CARB plans to explore new approaches for other land use types in the future.

Senate Bill 375 (The Sustainable Communities and Climate Protection Act of 2008)

Senate Bill (SB) 375, signed in September 2008, enhances the State's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from vehicles. In addition, SB 375 directs each of the State's 18 major Metropolitan Planning Organizations (MPOs) to prepare a "Sustainable Communities Strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plans (RTP).

SB 375, signed in September 2008, links regional transportation planning efforts, GHG reduction targets, and land use and housing allocations. It requires MPOs to adopt a Sustainable Communities Strategy or an Alternative Planning Strategy as part of the land use and housing allocation in their Regional Transportation Plan (RTP). CARB and the MPOs set reduction targets for passenger cars and light trucks in the area of the MPO's jurisdiction, to be updated every four to eight years. The MPO for the Newport Beach area, the Southern California Association of Governments (SCAG), released its RTP/SCS in September 2020. The SCS is designed to reduce GHG emissions from passenger vehicles by 19 percent per capita by 2035 compared to 2005, consistent with regional targets set by CARB.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

AB 1493, the Pavley Bill, enacted in 2002 requires the maximum feasible and cost-effective reduction of GHGs from automobiles and light-duty trucks. In 2004, CARB approved the "Pavley I" regulations that applied to new passenger vehicles beginning with model year 2009 through 2016. Pavley I is expected to reduce GHG emissions from regulated vehicles by 30 percent from 2002 levels by 2016. Pavley II was incorporated into Amendments to the Low Emission Vehicle Program referred to as LEV III. The amendments, effective August 7, 2012, apply to vehicles for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025.

Senate Bill 97

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. The legislation directed the California Office of Planning and Research to develop draft CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the California Natural Resources Agency to certify and adopt the State CEQA Guidelines. CEQA Guidelines Section 15183.5, Tiering and Streamlining the Analysis of GHG Emissions, was added as part of the CEQA Guideline amendments that became effective in 2010 and describes the criteria needed in a GHG reduction plan that would allow for the tiering and streamlining of CEQA analysis for development projects.

Senate Bill 100 and SB 1020 (California Renewables Portfolio Standard Program: 100 Percent Clean Electric Grid)

Signed into law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. SB 1020 provides additional goals for the path to the 2045 goal of 100

percent clean electricity retail sales. It creates a target of 90 percent clean electricity retail sales by 2035 and 95 percent clean electricity retail sales by 2040.

AB 1346 (Air Pollution: Small Off-Road Engines)

Signed into Law in October 2021, AB 1346 requires CARB, to adopt cost-effective and technologically feasible regulations to prohibit engine exhaust and evaporative emissions from new small off-road engines, consistent with federal law, by July 1, 2022. AB 1346 requires CARB to identify and, to the extent feasible, make available funding for commercial rebates or similar incentive funding as part of any updates to existing applicable funding program guidelines to local air pollution control districts and air quality management districts to implement to support the transition to zero-emission small off-road equipment operations.

SB 905 (Carbon Sequestration Program)

Signed on September 16, 2022, SB 905 establishes regulatory framework and policies that involve carbon removal, carbon capture, utilization, and sequestration. It also prohibits the injecting of concentrated CO₂ fluid into a Class II injection well for the purpose of enhanced oil recovery.

AB 1757 (Nature-Based Solutions)

Signed on September 16, 2022, AB 1757 requires State agencies to develop a range of targets for natural carbon sequestration and nature-based climate solutions that reduce GHG emissions to meet the 2030, 2038, and 2045 goals which would be integrated into a scoping plan addressing natural and working lands.

Executive Orders Related to GHG Emissions

Executive Order S-3-05

Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was codified in AB 32. Because the 2050 target is only contained in an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order B-30-15

On April 29, 2015, former-Governor Jerry Brown announced through Executive Order B-30-15 the following GHG emissions target: by 2030, California shall reduce GHG emissions to 40 percent below 1990 levels. The emissions reduction target of 40 percent below 1990 levels by 2030 is an interim-year goal to make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. The order directs CARB to provide a plan with specific regulations to reduce statewide sources of GHG emissions. Executive Order B-30-15 does not include a specific guideline for local governments.

Executive Order B-55-18

Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant State agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires State agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20

Issued on September 23, 2020, Executive Order N-79-20 established a goal to end the sales of new internal combustion engine vehicles in the State as soon as possible, and no later than 2035, and continue to phaseout fossil-fueled cars and trucks. By setting a course to end sales of internal combustion passenger vehicles by 2035, the Governor's Executive Order establishes a target for the transportation sector that helps put the State on a path to carbon neutrality by 2045. It is important to note that the Executive Order focuses on new vehicle sales for automakers, and therefore does not require Californians to give up the existing cars and trucks they already own.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat, even with rapid population growth.

Title 20 Appliance Efficiency Regulations

The appliance efficiency regulations (California Code of Regulations [CCR] Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

California Energy Code (California Building Energy Efficiency Standards)

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The 12 parts of the CCR Title 24 are known as the California Building Standards Code (CBSC). The California Energy Commission adopted its first energy code, titled the Energy Conservation Standards for New Residential and New Nonresidential Buildings, in 1978 in response to a legislative mandate to reduce energy consumption in the State. The CBSC is updated every three years.

The California Energy Commission (CEC) adopted the 2022 Energy Code on August 11, 2021, which was subsequently approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Title 24 standards result in less energy use, thereby reducing air pollutant emissions associated with energy consumption across California. For example, the 2022 Title 24 standards require efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more.

California Green Building Standards Code (CALGreen Code)

In 2008, the California Building Standards Commission adopted Part 11 of CCR Title 24, titled the California Green Building Standards Code (CALGreen Code) which became effective on August 1, 2009 as a voluntary code. The 2010 CALGreen Code was the first mandatory edition, took effect on January 1, 2011, and is now a part of the CBSC three-year update cycle. The most recent update to the CALGreen Code went into effect January 1, 2023 (2022 CALGreen). The 2022 CALGreen Code establishes mandatory measures for residential and non-residential building construction and encourages sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce GHG emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and non-residential buildings subject to the standard.

California Vehicle Regulations

Advanced Clean Cars I and II

Advanced Clean Cars combines several regulations into one package including the Low-Emission Vehicle (LEV) criteria and GHG regulations and the zero-emission vehicle (ZEV) regulation. Advanced Clean Cars I was adopted in 2012 and Advanced Clean Cars II was adopted in 2022. These regulations rapidly scale down emissions of light-duty passenger cars, pickup trucks, and sport utility vehicles (SUVs) and require an increased number of ZEVs to meet air quality and climate change emissions goals. By 2035, all new passenger cars, trucks, and SUVs sold in California will be zero emissions. The Advanced Clean Cars II regulations take the State's already growing ZEV market and robust motor vehicle emission control rules and augments them to meet more aggressive tailpipe emissions standards and ramp up to 100 percent ZEVs.

CARB Advanced Clean Fleets Regulation

CARB approved Advanced Clean Fleets Regulation on April 28, 2023, which requires fleet owners to begin transitioning toward ZEVs starting in 2024. Due to the impact that truck traffic has on residents living near heavily trafficked corridors, drayage trucks will need to be zero-emissions by 2035. All other fleet owners have the option to transition a percentage of their vehicles to meet expected zero-emission milestones, which gives owners the flexibility to continue operating combustion-powered vehicles as needed during the move toward cleaner technology.

Other Regulations

CARB has adopted numerous regulations on sources of GHGs since the approval of the Climate Change Scoping Plan. Some of the more notable regulations include the Low Carbon Fuel Standard (LCFS) and regulations affecting vehicle efficiency such as the Tire Pressure Program, Low Friction Oil, and Heavy-Duty Vehicle Aerodynamic Efficiency Standards. Also important are CARB regulations that apply to high global warming potential consumer products and refrigerants.

Regional

South Coast Air Quality Management District

The City lies within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Air districts have direct and indirect regulatory authority over sources of air pollution and GHGs within their

territory and can inform and guide how laws on air pollution and GHGs are applied. The air districts play a critical role in providing support and guidance to jurisdictions, but they do not officially certify Qualified GHG Reduction Strategies. The SCAQMD has not yet officially adopted plan-level guidelines for GHG reduction, although the agency has proposed project-level thresholds, below which a project's GHG emissions would not be considered significant for CEQA purposes.

South Coast Air Quality Management District Thresholds

In April 2008, the SCAQMD formed a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. This working group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research, CARB, the Attorney General's Office, a variety of city and county planning departments in the South Coast Air Basin (SCAB), various utilities such as sanitation and power companies throughout the SCAB, industry groups, and environmental and professional organizations. The Working Group proposed a tiered approach to evaluating GHG emissions for development projects where the SCAQMD is not the lead agency, wherein projects are evaluated sequentially through a series of "tiers" to determine whether the project is likely to result in a potentially significant impact due to GHG emissions.

With the tiered approach, a project is compared against the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. The SCAQMD has adopted a threshold of 10,000 metric tons of CO₂e (MTCO₂e) per year for industrial projects and a 3,000 MTCO₂e threshold was proposed for non-industrial projects but has not been adopted. The SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, SCAQMD initially outlined that a project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. However, the Working Group did not provide a recommendation for this approach. The Working Group folded the Tier 4 second option into the third option. Under the Tier 4 third option, a project would be excluded if it was below an efficiency-based threshold of 4.8 MTCO₂e per service population per year. Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

When the tiered approach is applied to a proposed project and the project is found not to comply with Tier 1 or Tier 2, the project's emissions are compared against a screening threshold, as described above, for Tier 3. The screening threshold formally adopted by SCAQMD is an "interim" screening threshold for stationary source industrial projects where the SCAQMD is the lead agency under CEQA. The threshold was termed "interim" because, at the time, SCAQMD anticipated that CARB would be adopting a statewide significance threshold that would inform and provide guidance to SCAQMD in its adoption of a final threshold. However, no statewide threshold was ever adopted, and the interim threshold remains in effect.

For projects for which SCAQMD is not a lead agency, no screening thresholds have been formally adopted. However, the SCAQMD Working Group recommended a threshold of 10,000 MTCO₂e/year for industrial projects and 3,000 MTCO₂e/year for residential and commercial projects. The SCAQMD determined that these thresholds would “capture” 90 percent of GHG emissions from these sectors, “capture” meaning that 90 percent of total emissions from all new projects would be subject to some type of CEQA analysis (i.e., found potentially significant).²

Southern California Association of Governments

On September 3, 2020, SCAG’s Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy [2020 RTP/SCS]). The RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The strategy was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Orange, Imperial, Los Angeles, Riverside, San Bernardino, and Ventura. The RTP/SCS is a long-range vision plan that balances future mobility and housing needs with economic, environmental, and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by State law to lower regional GHG emissions.

Local

City of Newport Beach General Plan

The *City of Newport Beach General Plan 2006 Update* (General Plan) includes goals and policies to reduce GHG emissions that can help save money for residents and businesses, enhance the local economy, improve public health, support improved air quality, and conserve water and other natural resources. The goals and policies below establish emissions reductions goals and create a high-level framework for GHG reduction efforts. Policies that support GHG emission reductions are located elsewhere in this element, as well as in the Circulation Element. Specific strategies, anticipated reductions, and associated action items are addressed in the Greenhouse Gas Reduction Program.

The following General Plan goals and policies that have been adopted by the City for the purpose of avoiding or mitigating an environmental effect are applicable to future development projects associated with the proposed Project.

Natural Resources Conservation Element

Goal NR 6 Reduced mobile source emissions.

Policy NR 6.1 Provide for walkable neighborhoods to reduce vehicle trips by siting amenities such as services, parks, and schools in close proximity to residential areas.

Goal NR 7 Reduced air pollutant emissions from stationary sources.

Policy NR 7.2 Require the use of Best Management Practices (BMP) to minimize pollution and to reduce source emissions.

² SCAQMD, “Staff Report: Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans,” December 5, 2008, Attachment E: “Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold,” October 2008, p. 3-2.

Goal NR 8 **Reduced air pollutant emissions from construction activities.**

Policy NR 8.1 Require developers to use and operate construction equipment, use building materials and paints, and control dust created by construction activities to minimize air pollutants.

City of Newport Beach Municipal Code

Title 15, Chapter 15.19 Electric Vehicle Charging Stations.³ Newport Beach Municipal Code (Municipal Code) Chapter 15.19 aims to adopt an expedited, streamlined electric vehicle charging station permitting process that complies with AB 1236 to achieve timely and cost-effective installations of electric vehicle charging stations. The provisions of this chapter encourage the use of electric vehicle charging stations by removing unreasonable barriers, minimizing costs to property owners and the City, and expanding the ability of property owners to install electric vehicle charging stations. Future housing development facilitated by the Project would be subject to the Building Division's permit review and application requirements to implement electric vehicle charging stations.

City of Newport Beach Energy Action Plan

Adopted in July 2013, the Newport Beach Energy Action Plan is the City's long-range plan to reduce local GHG emissions through reductions in energy used in facility buildings and operations. As part of the Newport Beach Energy Action Plan, the City selected a goal to reduce the City's existing GHG emissions to 1990 levels by 2020, which the City determined would achieve the GHG emissions reduction mandates of AB 32 and also would be consistent with the recommendations contained in the CARB AB 32 Scoping Plan to meet the State's GHG reduction goals. The Newport Beach Energy Action Plan's goals and policies are focused on energy efficiency and sustainability of City facilities. Therefore, the Newport Beach Energy Action Plan is not directly applicable to future development projects under the Project.

4.7.3 Existing Conditions

The study area for climate change and the analysis of GHG emissions is broad because climate change is influenced by worldwide emissions and their global effects. However, the study area is also limited by the State CEQA Guidelines Section 15064(d), which directs lead agencies to consider an "indirect physical change" only if that change is a reasonably foreseeable impact that may be caused by the Project or future housing development facilitated by the Project. This analysis limits discussion to those physical changes to the environment that are not speculative and are reasonably foreseeable.

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate—such as wind patterns, precipitation, and storms—over an extended period of time period. Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include CO₂, CH₄, N₂O, fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) (CEQA Guidelines §15364.5). Water vapor is excluded from the list of GHGs because it is short lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

³ City of Newport Beach (2021). *City of Newport Beach Municipal Code – Electric Vehicle Charging Stations*. <https://www.codepublishing.com/CA/NewportBeach/#!/NewportBeach15/NewportBeach1519.html#15.19>. Accessed July 2023.

Table 4.7-1: Description of Greenhouse Gases described the primary GHGs attributed to global climate change, including their physical properties.

GHGs are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely byproducts of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to climate change. Climate change is, by definition, a cumulative impact because it occurs worldwide. Although emissions of one single project do not cause climate change, GHG emissions from multiple projects (past, present, and future) throughout the world could result in a cumulative impact with respect to climate change.

Table 4.7-1: Description of Greenhouse Gases	
Greenhouse Gas	Description
Carbon Dioxide (CO ₂)	CO ₂ is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO ₂ is variable because it is readily exchanged in the atmosphere. CO ₂ is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N ₂ O)	N ₂ O is largely attributable to agricultural practices and soil management. Primary human-related sources of N ₂ O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N ₂ O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. The Global Warming Potential of N ₂ O is 298.
Methane (CH ₄)	Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH ₄ include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH ₄ is about 12 years and the Global Warming Potential is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of Chlorofluorocarbons (CFCs) and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are non-toxic, non-flammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF ₆)	SF ₆ is an inorganic, odorless, colorless, and non-toxic, non-flammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF ₆ is 23,900.

Greenhouse Gas	Description
Hydrochlorofluorocarbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase-out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen trifluoride (NF ₃)	NF ₃ was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.

Sources: Compiled from U.S. EPA, Overview of Greenhouse Gases, April 11, 2018. (<https://www.epa.gov/ghgemissions/overview-greenhouse-gases>); U.S. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016, 2018; IPCC Climate Change 2007: The Physical Science Basis, 2007; National Research Council, Advancing the Science of Climate Change, 2010; U.S. EPA, Methane and Nitrous Oxide Emission from Natural Sources, April 2010.

Human-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and SF₆.⁴ Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO₂e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, CH₄ has a GWP of 28, meaning its global warming effect is 28 times greater than carbon dioxide on a molecule per molecule basis.⁵

The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Without the natural heat-trapping effect of GHGs, Earth's surface would be about 34 degrees Celsius (° C) cooler.⁶ However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentration levels.

4.7.4 Thresholds of Significance

State CEQA Guidelines Appendix G provides a set of screening questions that address impacts related to GHG emissions and climate change. Specifically, the CEQA Guidelines state that a proposed project may have a significant adverse impact related to GHG emissions if:

- The project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- The project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

According to the California Air Pollution Control Officers Association (CAPCOA), "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective" (CAPCOA 2008). Due to the complex physical, chemical and atmospheric mechanisms involved in global climate change, there is no basis for concluding that a single project's increase in annual

⁴ United States Environmental protection Agency. (2023). [https://www.epa.gov/ghgemissions/overview-greenhouse-gases#:~:text=In%20general%2C%20fluorinated%20gases%20are,nitrogen%20trifluoride%20\(NF3\)](https://www.epa.gov/ghgemissions/overview-greenhouse-gases#:~:text=In%20general%2C%20fluorinated%20gases%20are,nitrogen%20trifluoride%20(NF3)). Accessed December 2023.

⁵ United Nations Intergovernmental Panel on Climate Change. (2014). <https://www.ipcc.ch/report/ar5/syr/>. Accessed December 2023.

⁶ United Nations Intergovernmental Panel on Climate Change. (2022). Climate Change 2022: Impacts, Adaptation, and Vulnerability. <https://www.ipcc.ch/report/ar6/wg2/>. Accessed December 2023

GHG emissions would cause a measurable change in global GHG emissions necessary to influence global climate change. State CEQA Guidelines Section 15064.4(b) states that “in determining the significance of a project’s greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project’s emissions to the effects of climate change. A project’s incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions.” Due to the global context of climate change, GHG analysis is based on the cumulative impact of emissions.

Generally, the evaluation of an impact under CEQA involves comparing the project’s effects against a threshold of significance. The CEQA Guidelines clarify that “when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.” For GHG emissions and global warming, there is not, at this time, one established, universally agreed-upon quantified threshold of significance for GHG impacts. The State CEQA Guidelines do not establish a quantified threshold of significance for GHG impacts. Instead, lead agencies have the discretion to establish significance thresholds for their respective jurisdictions. A lead agency may look to thresholds developed by other public agencies or other expert entities, so long as the threshold chosen is supported by substantial evidence.

State CEQA Guidelines Section 15064.4(b) recommends considering certain factors when determining the significance of a project’s GHG emissions, including: (1) the extent to which the project may increase or reduce GHG emissions as compared to the existing conditions; (2) whether the project’s GHG emissions exceeds a significance threshold that the lead agency determines applies to the project; and (3) 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 GHGs.

Even in the absence of clearly defined thresholds for GHG emissions, the law requires that an agency makes a good faith effort to disclose the GHG emissions from a project and mitigate to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact. Regardless of which threshold(s) are used, the agency must support its analysis and significance determination with substantial evidence (CEQA Guidelines §15064.7).

State CEQA Guidelines Section 15183.5 allows lead agencies to choose to analyze GHG emissions of a project at a programmatic level, tiering from a plan for the reduction for GHG emissions or similar document, such as a Climate Action Plan. Plans used for tiering must include all of the plan elements identified in CEQA Guidelines Section 15183.5(b)(1).

In addition to evaluation of a project’s impacts against a quantifiable significant threshold, per CEQA Guidelines Section 15064(h)(3), a project’s contribution to a cumulatively considerable impact would not be substantial if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially reduce the cumulative impact within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include “[a] water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions.” Therefore, State CEQA Guidelines Section 15064(h)(3) allows a

lead agency to make a finding of less than significant for GHG emissions if a project complies with programs and/or other regulatory schemes to reduce GHG emissions.

4.7.5 Methodology

As noted, State CEQA Guidelines Section 15064.4 gives lead agencies the discretion to determine whether to assess the significance of GHG emissions quantitatively or qualitatively. Under either approach, the lead agency's analysis must demonstrate a good faith effort to disclose the amount and significance of GHG emissions resulting from a project, based to the extent possible on scientific and factual data (CEQA Guidelines §15064.4[a]). The threshold for evaluating the significance of GHG emissions is based on consistency with applicable regulatory plans and policies to reduce GHG emissions; however, in a good faith effort to fully disclose potential Project GHG emissions, the City has also chosen to quantify the Project's GHG emissions, as described in further detail below.

As previously described, in the interest of full disclosure, this EIR section also quantifies and discloses potential GHG emissions generated from land use changes anticipated to occur under the proposed Project. Given that the details of construction, design/size, and timing of each residential and mixed-used development under the proposed Project are unknown, this projection is meant to serve merely as an illustration of the possible GHG emissions that could occur. The emissions, including those from City-wide vehicle trips, that may be generated by future housing units associated with the Project.

Total Project GHG emissions (i.e., construction and operation) were quantified to provide information to decision makers and the public regarding the level of annual GHG emissions. GHG emissions are typically separated into three categories that reflect different aspects of ownership or control over emissions:

- Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.
- Scope 3: Indirect emissions associated with other emissions sources, such as energy required to transport solid waste, water, and wastewater.

Implementation of the proposed Project would result in GHG operational emissions directly from on-road mobile vehicles, electricity, and natural gas, and indirectly from water conveyance, wastewater generation, and solid waste handling. In addition, construction activities such as demolition, hauling, and construction worker trips would generate GHG emissions. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions have been estimated on an annual basis.

As addressed in this Program EIR, the impact analysis is conservative because it accounts for additional housing units as a buffer to address future "no net loss" to preclude the need to identify replacement sites during 6th Cycle implementation. Therefore, this Program EIR conservatively analyzes a total development capacity of 9,914 units including future development capacity of up to 9,649 units on 247 housing sites, 25 units associated with pipeline projects, and 240 accessory dwelling units (ADUs). Further, this EIR analysis does not consider any loss of existing on the ground development which may be displaced to accommodate 9,914 housing units.

4.7.6 Project Impacts and Mitigation

Threshold 4.7-1: Would the Project generate greenhouse gas emissions, either directly or indirectly, that could have a significant impact on the environment?

Residential development associated with the 2021-2029 Housing Element would generate increases in GHG emissions. Future development is expected to result in increased GHG emissions, largely due to increased vehicle miles traveled (VMT), as well as from construction activities, stationary area sources (i.e., natural gas consumption for space and water heating devices, landscape maintenance equipment operations, and use of consumer products), energy consumption, water supply, and solid waste generation. Direct project-related GHG emissions typically include emissions from construction and operational activities.

Construction

The California Emissions Estimator Model (CalEEMod) was used to calculate GHG emissions from construction equipment operations, as well as materials transport, and construction workers commutes to and from a construction site. Construction activities would generally consist of grading, demolition, excavation, cut-and-fill, paving, building construction, and application of architectural coatings. Construction activities associated with future housing development would occur in incremental phases over time based upon numerous factors, including market demand, and economic and planning considerations.

Construction-related GHG emissions are typically site specific and depend upon multiple variables. Quantifying individual future development's GHG emissions from short-term, temporary construction-related activities is not possible due to project-level variability and uncertainties concerning detailed site plans, construction schedules/duration, equipment requirements, etc., among other factors, which are presently unknown. Since these parameters can vary so widely (and individual project-related construction activities would occur over time dependent upon numerous factors), quantifying precise construction-related GHG emissions and impacts would be speculative and impractical. As such, modeling for full buildout of development construction could not be included due to infeasibility of prolonged construction years to build all potential units. Depending on how development proceeds, construction-related GHG emissions associated with future development could exceed SCAQMD thresholds of significance. To provide a reference of the types of GHG emissions associated with representative individual construction activities, four hypothetical scenarios were modeled for different residential development capacities anticipated from implementation of the proposed Project. Modeling was conducted for construction of the following four residential development scenarios:

- 50 DU, 1 Acre Scenario: 50 dwelling units on approximately 1 acre.
- 250 DU, 5 Acres Scenario: 250 dwelling units on approximately 5 acres.
- 500 DU, 5 Acres Scenario: 500 dwelling units on approximately 5 acres.
- 600 DU, 12 Acres Scenario: 600 dwelling units on approximately 12 acres.

This approach allows for an estimate of the range of construction emissions that could occur from buildout of the Project. **Table 4.7-2: Typical Project Construction Greenhouse Gas Emissions** presents the estimated short-term construction emissions for the four hypothetical scenarios.

Table 4.7-2: Typical Project Construction Greenhouse Gas Emissions				
Emissions	Potential MTCO₂e			
	50 DU, 1 Acre	250 DU, 5 Acres	500 DU, 5 Acres	600 DU, 12 Acres
Total GHG Construction Emissions	315	519	1,257	1,529
GHG Construction Emissions (amortized over 30 years)	10.5	17.3	41.9	50.97

Source: CalEEMod version 2021.1.1. Refer to **Appendix C**, for model outputs

As shown in **Table 4.7-2**, short-term construction GHG emissions would range between 315 and 1,529 MTCO₂e for the four development scenarios. As also shown in the table, the 50 DU, 1-Acre scenario is anticipated to generate construction GHG emissions amortized over 30 years totaling 10.5 MTCO₂eq/yr year. The 250 DU, 5-Acre residential development scenario is anticipated to generate construction GHG emissions amortized over 30 years totaling 17.3 MTCO₂eq/yr year. The 500 DU, 5-Acre scenario is anticipated to generate construction GHG emissions amortized over 30 years totaling 41.9 MTCO₂eq/yr year. The 600 DU, 12-Acre scenario is anticipated to generate construction GHG emissions amortized over 30 years totaling 50.97 MTCO₂eq/yr. These values are an approximation for informational purposes and can vary widely depending upon the type and intensity of construction occurring at any given time.

SCAQMD recommends that GHG emissions be amortized over a 30-year period and added to the total operational emissions of a project to ensure that GHG reduction strategies address construction emissions as part of overall operation.⁷

Operational

Future housing development facilitated by Project would generate long-term operational emissions. The total daily operational emissions that could potentially be generated over the life of Project were estimated using the CalEEMod Version 2022.1.0. Specific data for the types and amounts of future development were entered into CalEEMod to determine the pollutant emissions anticipated with buildout of the City’s unmet RHNA for the four aforementioned residential development scenarios.

This data includes dwelling units, average daily trips, vehicle miles traveled, and average trip lengths. Where Project-specific data was not available, CalEEMod defaults were used. The results of the CalEEMod calculations for the Project’s annual long-term operational emissions are presented in **Table 4.7-3: Operational Greenhouse Gas Emissions**.

⁷ The amortization period is based on the SCAQMD GHG CEQA Significance Threshold Working Group (SCAQMD, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, August 26, 2009).

Emissions Source	Potential MTCO ₂ e per Year			
	50 DU, 1 Acre	250 DU, 5 Acres	500 DU, 5 Acres	600 DU, 12 Acres
Mobile	393	1,963	3,927	4,712
Area Source	16.8	16.7	168	201
Energy	73.7	57.5	737	884
Water and Wastewater	4.57	3.57	45.7	54.8
Solid Waste	11.5	57.7	115	139
Total	499	2,099	4,993	5,991

Source: CalEEMod version 2021.1.1. Refer to **Appendix C**, for model outputs

The following activities are typically associated with the operation of residential development that would contribute to the generation of GHG emissions:

- **Area Sources.** Area source emissions occur from hearths, architectural coatings, landscaping equipment, and consumer products. Additionally, the primary emissions from architectural coatings are volatile organic compounds, which are relatively insignificant as direct GHG emissions.
- **Energy Consumption.** Energy consumption consists of emissions from project electricity and natural gas consumption. Primary uses of electricity and natural gas consumption would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. Energy emissions are calculated based on CalEEMod consumption rates and emissions factors.
- **Mobile Sources.** Mobile sources are emissions from motor vehicles. Vehicle trips generated by the new residential development facilitated by the Project would result in GHG emissions through combustion of fossil fuels. In calculating mobile-source GHG emissions, emissions are estimated based on the Project’s forecast trip generation was estimated based on the proposed zoning/overlay, density, development capacity, and ITE Trip Generation Manual (11th Edition) trip rates for the following land use categories:
 - ITE Category 220 – Multifamily Housing (Low-Rise)
- **Solid Waste.** Solid waste releases GHG emissions in the form of methane when these materials decompose. Solid waste emissions are calculated based on generation rates and emissions factors in CalEEMod.
- **Water and Wastewater.** Project GHG emissions would be generated from energy consumption associated with water and wastewater conveyance and treatment. Water and wastewater emissions are calculated based on the estimated consumption and emissions factors in CalEEMod.

As shown in **Table 4.7-3**, the annual emissions ranges from buildout of the Project would total approximately 499 MTCO₂e to 5,991 MTCO₂e.

The proposed Project would generate increases in GHG emissions from both the construction and operation of new housing (refer to **Table 4.7-2** and **Table 4.7-3**). However, the proposed Project would not directly construct new housing, but would facilitate the development of residential units by adopting implementing actions associated with the 2021-2029 Housing Element. Future residential development

facilitated by the Project would be subject to the City's development review process and would be required to demonstrate consistency with General Plan policies, Municipal Code requirements, and other applicable local and State requirements. The SCAQMD has not yet adopted a specific significance threshold for residential development. As previously mentioned, a 3,000 MTCO_{2e} threshold was proposed for non-industrial projects but has not been formally adopted. The increase of GHG emissions from the Project would be greater than 3,000 MTCO_{2e}.

A case-by-case review of future development provides flexibility to incorporate the latest analysis methods, technological advancements, mitigation options, and GHG significance thresholds (including using thresholds that meet the latest GHG reduction goals). Projects would need to demonstrate compliance with the City's GHG thresholds. Mitigation Measure (MM) GHG-1 requires future development to conduct a project-level GHG emissions impact assessment and mitigate potentially significant emissions to the extent feasible. A future development project with GHG emissions below SCAQMD thresholds is considered to have a less than significant impact. Future development projects that are allowed "by right" (e.g., without a Conditional Use Permit, Planned Unit Development Permit, or other discretionary action) would be required to submit documentation to the City demonstrating GHG emissions would be less than significant or otherwise have to prepare CEQA documentation. However, at the program level, the Project's GHG emissions would exceed SCAQMD thresholds as shown in **Table 4.7-3**. In addition, due to the forecast population growth and GHG emissions associated with future development, and the lack of specificity of future development, program-level GHG emissions impacts would remain significant and unavoidable after implementation of mitigation, and a Statement of Overriding Considerations would be required should the City choose to approve the Project.

Moreover, although the CalEEMod modeling outputs show that the proposed Project would increase GHG emissions, this analysis does not fully account for the regional reduction in mobile GHG emissions that would be likely to occur due to the benefits of increased housing opportunities in the City. Specifically, the proposed Project would increase housing opportunities in a jobs-rich City. The proposed Project would plan for the development of a minimum of 4,845 dwelling units⁸ (of which 49% must be provided at lower income levels), thus creating opportunities for many of employees within the City to live closer to their jobs, reducing VMT and associated GHG emissions on a regional basis. As described in **Appendix F**, the Project decreases the amount of travel per individual that is forecast to occur in comparison to the Existing (2020) Condition. The Project decreases the amount of travel per individual that is forecast to occur in comparison to the 2006 General Plan Baseline (Buildout Land Use).

Additionally, the proposed Project would generally increase housing proximate to transit, employment, commercial and entertainment opportunities consistent with General Plan Policy NR 6.1 and Policy NR 6.2. As described in further detail below, residential development in the mixed-use, jobs-rich, and transit-served City would generally be consistent with the City's GHG reduction goals and policies established in the LUCE and Sustainable City Plan to reduce GHG emissions. Further, the City's existing land use policy and regulatory framework as well as the policies contained in proposed Project would ensure that new residential development planned for under the proposed Project would occur in the most sustainable manner possible in a way that minimizes generation of GHG emissions. However, as described above, despite incorporation of **MM GHG-1**, GHG emissions impacts would remain significant and unavoidable at the program level.

⁸ The 2021-2029 Regional Housing Needs Allocation (RHNA) Obligation is 4,845 housing units. The total focus area capacity is 9,649 housing units.

Impact Summary: **Significant and Unavoidable Impact.** At the program level the proposed Project would result in significant GHG emissions despite incorporation of MM GHG-1.

Threshold 4.7-2: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG?

The significance of the GHG emissions associated with the proposed Project have been evaluated based on whether it would be consistent with the relevant statewide and regional mandates, plans, policies and regulations to reduce GHG emissions. These include AB 32 and SB 32 (Health and Safety Code Division 25.5), AB 1279, SB 375, Connect SoCal, and other statewide and regional regulations and programs. Because the City’s existing regulatory framework incorporates sustainability goals and policies that would promote a reduction in GHG emissions, development of new residential units planned for under the proposed Project would not conflict with the GHG reduction goals of Health and Safety Code Division 25.5 and associated GHG reduction plans such as Connect SoCal. Connect SoCal also strives towards enhancing the existing transportation system and integrating land use into transportation planning. Connect SoCal recommends local jurisdictions accommodate future growth within existing urbanized areas to reduce VMT, congestion, and GHG emissions. As previously described, the proposed Project would increase housing opportunities in a jobs-rich City. The proposed Project would plan for the development of a minimum of 4,845 dwelling units (of which 49% are for lower income levels), thus creating opportunities for many of the employees within the City to live closer to their jobs, reducing VMT and associated GHG emissions on a regional basis. Providing new housing as planned for under the proposed Project would create a more diverse, denser, and mixed-use City with opportunities to walk, bike, and take transit, consistent with Connect SoCal’s alignment of transportation, land use, and housing strategies. As such, the proposed Project would be consistent with regional plans to reduce VMT and associated GHG emissions.

The proposed Project would also be consistent with the State’s strategies in the 2022 Scoping Plan Update to reduce GHG emissions. The 2022 Scoping Plan Update relies on a broad array of GHG reduction strategies, which include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based mechanisms, such as the Cap-and-Trade Program. These potential strategies include increasing the fuel economy of vehicles, reducing the rate of growth in VMT, supporting high speed rail and other alternative transportation options, and use of high efficiency appliances, water heaters, and HVAC systems. The proposed Project would benefit from statewide, regional, and City efforts towards increasing the portion of electricity provided from renewable resources as well as statewide efforts towards increasing the fuel economy standards of vehicles. Additionally and as discussed previously, future residential projects would continue to be subject to the City’s requirements for sustainable design, energy efficiency, water efficiency, and VMT reduction – all of which are consistent with State and regional mandates that address GHG emissions. The primary focus of many of the statewide and regional mandates, plans, policies and regulations is to address worldwide climate change. Global GHG emissions, in their aggregate, contribute to climate change, not any single source of GHG emissions alone.

Based on the above, the proposed Project would be consistent with the California Renewables Portfolio Standard Program, SB 100, Title 24 of the CCR (Energy Code and CALGreen), SB 375, RTP/SCS and recommendations of the State Attorney General, California Office of Planning and Research, and Climate

Action Team. Therefore, the proposed Project would be consistent with applicable plans, policies, and regulations. However, due to the magnitude of the Project's GHG emissions, impacts would be significant and unavoidable at the program level.

Impact Summary: **Significant and Unavoidable Impact.** The proposed Project would be consistent with applicable plans, policies, and regulations. However, due to the magnitude of the Project's GHG emissions, impacts would be significant and unavoidable at the program level.

4.7.7 Cumulative Impacts

Due to the global context of climate change, the analysis of GHG emissions is cumulative in nature because impacts are caused by cumulative global emissions. The proposed Project itself is cumulative in nature as it represents growth through the City over approximately the next 20 years. The proposed Project is not one individual project, but a number of as yet undefined future projects that may occur under the proposed Project. New development carried out by the proposed Project would contribute to GHG impacts regionally and globally. As described in above, the proposed Project would have significant impacts related to GHG emissions despite implementation of **MM GHG-1**. It should be noted that the Project would be consistent with plans and regulations adopted for the purpose of reducing GHG emissions and their cumulative impacts on the environment. Nonetheless, the implementation of the proposed Project would potentially have a considerable contribution to a cumulatively significant impact related to GHG emissions due to the magnitude of the overall emissions at the program level.

4.7.8 Mitigation Program

As noted, all future housing development facilitated by the Project would be subject to the City's development review process, which may include review pursuant to CEQA, and would be assessed on a case-by-case basis for potential effects concerning potential air quality impacts. Future housing development would be subject to compliance with relevant federal, State, and local requirements including requirements set forth in the Newport Beach General Plan and Newport Beach Municipal Code.

General Plan Policies

See **Section 4.7.2: Regulatory Setting** for complete policy text.

- Policy NR 6.1
- Policy NR 7.2
- Policy NR 8.1

Mitigation Measures

MM GHG-1: Prior to demolition, grading, or building permit approval, and in accordance with SCAQMD's guidance, a project-specific Greenhouse Gas Emissions Assessment shall be prepared for residential developments that would exceed SCAQMD's 3,000 MTCO₂e proposed threshold of significance (or those in place at the time of the development application). Future development shall mitigate GHG emissions to below SCAQMD's thresholds of significance to the extent feasible.

4.7.9 Level of Significance After Mitigation

Implementation of MM GHG-1 would require future development to demonstrate methods to mitigate potentially significant emissions to the extent feasible. Future development with GHG emissions below SCAQMD thresholds would be considered to have a less than significant impact. However, due to the magnitude of the Project's GHG emissions at the program level, Impact 4.7-1 would be considered significant and unavoidable. The Project would be consistent with plans and regulations adopted for the purpose of reducing GHG emissions and their cumulative impacts on the environment (Impact 4.7-2). Nonetheless, overall GHG impacts would be significant and unavoidable.

4.7.10 References

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