4.6 GREENHOUSE GAS EMISSIONS

This section of the Revised Draft EIR provides a discussion of global climate change (GCC), existing regulations pertaining to GCC, and an analysis of greenhouse gas (GHG) emissions associated with the modified Dana Point Harbor Hotels Project (Modified Project). This section assesses the Modified Project in accordance with methodologies recommended by California Air Resources Board (CARB) and the South Coast Air Quality Management District (SCAQMD).

The Original Project analysis utilized the California Emissions Estimator Model (CalEEMod) version 2016.3.2 to quantify the construction and operational GHG emissions of the Original Project. Since the analysis of the Original Project was prepared, CalEEMod version 2022.1 was approved and previous CalEEMod versions, such as 2016.3.2, are now considered outdated. CalEEMod version 2022.1 includes updated default parameters and refined underlying calculations for emissions quantification; therefore, CalEEMod version 2022.1 is appropriate for use and supersedes version 2016.3.2. As such, CalEEMod version 2022.1 was used to quantify the construction and operational GHG emissions of the Modified Project. In addition, the Original Project and existing uses were remodeled using CalEEMod version 2022.1, which are available as Appendix D of this Revised Draft Environmental Impact Report (EIR).

4.6.1 Scoping Process

4.6.1.1 Original Project Scoping

The City of Dana Point (City) received 8 comment letters during the public review period of the Initial Study/Notice of Preparation (IS/NOP) prepared for the Original Project. One letter received included comments related to GHG emissions. For copies of the IS/NOP comment letters, refer to Appendix A of the 2021 Draft EIR.

The letter from SCAQMD, received on October 22, 2020, suggested that the Original Project utilize SCAQMD's *CEQA Air Quality Handbook* (1993 and associated updates) and CalEEMod to analyze air quality and GHG impacts.

4.6.1.2 Modified Project Scoping

A Supplemental Notice of Preparation (NOP) for the Modified Project was circulated for public review from July 19, 2024, through August 19, 2024.

Copies of the Supplemental NOP comment letters are also included within Appendix A of this Revised Draft EIR. One comment letter included comments related to GHG emissions.

The letter from Mitchell M. Tsai received on August 12, 2024, noted that the use of local workers for construction of the Modified Project could reduce GHG emissions by decreasing commute distances.

4.6.2 Existing Environmental Setting

The project site is located in the City of Dana Point, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the SCAQMD. The Modified Project would be located on the same

site as the Original Project; therefore, the existing environmental setting as described below is derived from that discussed in the 2021 Draft EIR.

4.6.2.1 Description of Global Climate Change and its Sources

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2 degrees Celsius (°C) or 1.1 ± 0.4 degrees Fahrenheit (°F) in the 20th century. The prevailing scientific consensus on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide (CO_2) and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[1]

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 global climate change are the following:[2]

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO_2, methane, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic

1 The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

2 The GHGs listed are consistent with the definition in Assembly Bill 32 (Government Code 38505), as discussed later in this Revised Draft EIR section.

evaporation. For the purposes of this analysis, the term "GHGs" will refer collectively only to the six gases listed above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e). Table 4.6.A shows the GWP for each type of GHG. For example, sulfur hexafluoride is 23,900 times more potent at contributing to global warming than carbon dioxide.

Table 4.6.A: Global Warming Potential for Selected Greenhouse Gases

Pollutant	Lifetime (Years)	Global Warming Potential (100-year)[1]
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	310
HFC-23	270	11,700
HFC-134a	14	140
HFC-152a	1.4	140
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoromethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: *Second Update to the Climate Change Scoping Plan: Building on the Framework* (CARB 2017b). Website: www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents (accessed November 2024).

CARB = California Air Resources Board
HFC = hydrofluorocarbons
PFC = perfluorocarbons

The following discussion summarizes the characteristics of the six primary GHGs.

Carbon Dioxide. In the atmosphere, carbon generally exists in its oxidized form as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals, and plants; volcanic outgassing; decomposition of organic matter; and evaporation from the oceans. Human-caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO_2 each year, far outweighing the 7 billion tons of man-made emissions of CO_2 each year. Nevertheless, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot

keep pace with this extra input of man-made CO_2; consequently, the gas is building up in the atmosphere.

In 2021, total annual CO_2 accounted for 81.2 percent of California's overall GHG emissions.[3] Transportation is the single largest source of CO_2 in California, which is primarily composed of on-road travel. Electricity production and industrial and residential sources also make important contributions to CO_2 emissions in California.

Methane. CH_4 is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation, manure management, and rice cultivation are also significant sources of CH_4 in California. Total annual emissions of CH_4 accounted for 9.8 percent of GHG emissions in California in 2021.[4]

Nitrous Oxide. N_2O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N_2O is also a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion sources emit N_2O. The quantity of N_2O emitted varies according to the types of fuel, technology, and pollution control devices used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in the State. Nitrous oxide emissions accounted for 3.5 percent of GHG emissions in California in 2021.[5]

Hydrofluorocarbons, Perfluorocarbons, Nitrogen Trifluoride, and Sulfur Hexafluoride. HFCs are primarily used as substitutes for O_3-depleting substances regulated under the Montreal Protocol.[6] PFCs, NF_3, and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in the State; however, the rapid growth in the semiconductor industry, which is active in the State, has led to greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 5.6 percent of GHG emissions in California in 2021.[7]

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3 California Air Resources Board (CARB). 2022c. GHGs Descriptions and Sources in California. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed May 13, 2024).

4 United States Environmental Protection Agency (USEPA). 2023. Inventory of U.S. Greenhouse Gas Emissions and Sinks. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks#:~:text=In%202021%2C%20U.S.%20greenhouse%20gas,sequestration%20from%20the%20land%20 sector (accessed May 13, 2024).

5 Ibid.

6 The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the O_3 layer by phasing out the production of several groups of halogenated hydrocarbons that are believed to be responsible for O_3 depletion and are also potent GHGs.

7 CARB. 2022a. *2022 Scoping Plan Update*. November 16, 2022. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed June 2024).

4.6.2.2 Emissions Sources and Inventories

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, national, State, and local GHG emission inventories. However, because GHGs persist for a long time in the atmosphere, accumulate over time, and are generally well mixed, their impact on the atmosphere and climate cannot be tied to a specific point of emission.

Global Emissions. Worldwide emissions of GHGs in 2020 totaled 22.9 billion metric tons (MT) of CO_2e. Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change.[8]

United States Emissions. In 2022, the year for which the most recent data are available, the United States emitted about 6,343 million metric tons of CO_2e (MMT CO_2e). Overall, emissions in 2022 increased by 1 percent relative to the 2021 total GHG emissions. This increase in total GHG emissions was driven by fossil fuel combustion due primarily to increased energy use, due in part to the continued rebound in economic activity after the height of the COVID-19 pandemic. However, GHG emissions in 2022 were 17 percent below those of 2005 levels. Of the five major sectors—residential and commercial, agricultural, industry, transportation, and electricity generation—transportation accounted for the highest amount of GHG emissions in 2022 (approximately 28 percent), with electricity generation second at 25 percent and emissions from industry third at 23 percent.[9]

State of California Emissions. The State emitted 381.3 MMT CO_2e emissions in 2021, 12.6 MMT CO_2e higher than 2020 levels but 23.1 MMT CO_2e below the 2019 levels.[10] CARB estimates that transportation was the source of 38 percent of the State's GHG emissions in 2021, which is 7.4 percent higher than the 2020 emissions. This increase was most likely from passenger vehicles whose activity and emissions rebounded after the COVID-19 pandemic. The next largest sources included industrial sources at approximately 19 percent and electricity generation at 16 percent. The remaining sources of GHG emissions were commercial and residential activities at 10 percent, agriculture at 8 percent, high GWP at 6 percent, and waste at 2 percent.[11]

4.6.3 Regulatory Setting

This section includes applicable federal, State, regional, and local regulations. As the Modified Project would be located in the same geographic location as the Original Project and would result in the development of the same types of uses on the project site, the following regulatory setting is

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8 United Nations Framework Convention on Climate Change. 2022. GHG Data from UNFCCC. Website: https://di.unfccc.int/time_series (accessed May 13, 2024).

9 USEPA. 2023. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks (accessed May 13, 2024).

10 CARB. 2023. *California Greenhouse Gas Emissions for 2000 to 2021, Trends of Emissions and Other Indicators Report*. Website: https://ww2.arb.ca.gov/sites/default/files/2023-12/2000_2021_ghg_inventory_trends. pdf (accessed May 13, 2024).

11 Ibid.

derived from that discussed in the 2021 Draft EIR. However, since the 2021 Draft EIR was prepared, the Southern California Association of Governments (SCAG) adopted the 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

4.6.3.1 Federal Regulations

It should be noted that executive orders signed by President Trump in early 2025 may affect current federal regulations, but it is too soon to determine any precise effect on the regulations discussed below. Further, such orders are expected to face legal challenges. Since most detailed regulations arise from State law, changes to federal regulations are not likely to affect the environmental effects of the Modified Project.

Federal Clean Air Act. The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the United States Environmental Protection Agency (USEPA) has the authority to regulate CO_2 emissions under the Federal Clean Air Act (FCCA). While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

This includes the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the Federal Clean Air Act, finding that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, which led to national GHG emission standards.

In October 2012, the USEPA and the National Highway Traffic Safety Administration (NHTSA), on behalf of the U.S. Department of Transportation, issued final rules to further reduce GHG emissions and improve Corporate Average Fuel Economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 *Federal Register* 62624). The NHTSA's CAFE standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025 (77 *Federal Register* 62630).

On March 31, 2022, the NHTSA finalized the CAFE standards for Model Years 2024–2026 Passenger Cars and Light Trucks. The amended CAFE standards would require an industry-wide fleet average of approximately 49 miles per gallon (mpg) for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8 percent annually for model years 2024–2025, and 10 percent annually for model year 2026. The final standards are estimated to save about 234 billion gallons of gas between model years 2030 to 2050.

4.6.3.2 State Regulations

Assembly Bill 1493 (2002). In a response to the transportation sector's significant contribution to California CO_2 emissions, Assembly Bill (AB) 1493 was enacted on July 22, 2002. AB 1493 requires the CARB to set GHG emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. These standards (starting in model years 2009 to 2016) were approved by the CARB in 2004, but the needed waiver of Clean Air Act Preemption was not granted by the USEPA until June 30, 2009. CARB responded by amending its original regulation, now referred to as Low Emission Vehicle III (LEV III), to take effect for model years starting in 2017 to 2025. The Trump administration revoked California's waiver in 2019, but the Biden administration restored California's waiver in 2021.

Executive Order S-3-05 (2005). Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05 on June 1, 2005, which proclaimed that California is vulnerable to the impacts of climate change. To combat those concerns, the executive order established California's GHG emissions reduction targets, which established the following goals:

- GHG emissions should be reduced to 2000 levels by 2010;
- GHG emissions should be reduced to 1990 levels by 2020; and
- GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

The Secretary of the California Environmental Protection Agency (CalEPA) is required to coordinate efforts of various State agencies to collectively and efficiently reduce GHGs. A biannual progress report must be submitted to the Governor and State Legislature disclosing the progress made toward GHG emissions reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, the coastline, and forestry, and report possible mitigation and adaptation plans to address these impacts.

The Secretary of CalEPA leads this Climate Action Team (CAT) made up of representatives from State agencies as well as numerous other boards and departments. The CAT members work to coordinate statewide efforts to implement global warming emissions reduction programs and the State's Climate Adaptation Strategy. The CAT is also responsible for reporting on the progress made toward meeting the statewide GHG targets that were established in the executive order and further defined under AB 32, the "Global Warming Solutions Act of 2006." The first CAT Report to the Governor and the Legislature was released in March 2006, in which it laid out 46 specific emissions reduction strategies for reducing GHG emissions and reaching the targets established in the executive order. The most recent report was released in December 2020.

Assembly Bill 32 (2006), California Warming Solutions Act. California's major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort set a GHG emissions reduction target to reduce GHG emissions to 1990 levels by 2020. The CARB has established the level of GHG emissions in 1990 at 427 MMT CO_2e. The emissions target of 427 MMT CO_2e requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main

State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The CARB approved the Scoping Plan on December 11, 2008. It contains the main strategies California will implement to achieve the reduction of approximately 169 MMT CO_2e, or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reduction of 31.7 MMT CO_2e);
- The Low-Carbon Fuel Standard (15.0 MMT CO_2e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e).

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emissions reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020 and sets the groundwork to reach long-term goals set forth in EOs S-3-05 and B-16-2012. The First Update highlights California's progress toward meeting the "near-term" 2020 GHG emissions reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. The CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[12] to reflect the 2030 target set by EO B-30-15 and codified by Senate Bill (SB) 32.

The 2022 Scoping Plan[13] was approved in December 2022 and assesses progress towards achieving the SB 32 2030 target and lays out a path to achieve carbon neutrality no later than 2045. 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.

Senate Bill 375 (2008). Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, the CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). The CARB may update the targets every 4 years and

12 CARB. 2017a. *California's 2017 Climate Change Scoping Plan*. November. Website: ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf (accessed June 2024).

13 CARB. 2022a. *2022 Scoping Plan Update*. November 16, 2022. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed June 2024).

must update them every 8 years. MPOs, in turn, must demonstrate how their plans, policies, and transportation investments meet the targets set by the CARB through Sustainable Communities Strategies (SCSs). The SCSs are included with the Regional Transportation Plans (RTPs), reports required by State law. However, if an MPO finds that its SCS will not meet the GHG reduction target, it may prepare an Alternative Planning Strategy (APS). The APS identifies the impediments to achieving the targets.

Executive Order B-30-15 (2015). Governor Jerry Brown signed EO B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. The CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and, therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. SB 350, signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent; and
- Increase energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for the private utilities and by the California Energy Commission for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other nonrenewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to State energy agencies under existing law. The addition made by this legislation requires State energy agencies to plan for and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197. In summer 2016 the Legislature passed, and the Governor signed, SB 32, and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps the State on the path toward achieving its 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change (IPCC) analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO_2e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100. On September 10, 2018, Governor Brown signed SB 100, which raises California's renewable portfolio standard requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the Western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18. EO B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." EO B-55-18 directs the CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Assembly Bill 1279. AB 1279 was signed in September of 2022 and codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels by 2045 and directs CARB to work with relevant State agencies to achieve these goals.

California Building Efficiency Standards (Title 24, Part 6). The California Building Standards Code, or Title 24 of the California Code of Regulations (CCR) contains the regulations that govern the construction of buildings in California. Within the Building Standards Code, two parts pertain to the incorporation of both energy efficient and green building elements into land use development. Part 6 is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. These standards were first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption and are updated on an approximately 3-year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. In November 2008, the California Building Standards Commission established the California Green Building Standards Code (CALGreen Code), which sets performance standards for residential and non-residential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The current set of standards were adopted in 2022 and will apply to projects seeking building permits on or after January 1, 2023. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.**Executive Order N-79-20.** EO N-79-20, which was signed by the Governor on September 23, 2020, sets the following goals for the State: 100 percent of in-state sales of new passenger cars and trucks shall be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the State shall be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and 100 percent of off-road vehicles and equipment

in the State shall be zero-emission by 2035, where feasible.**California Integrated Waste Management Act.** To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal. In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. The resulting 2012 Mandatory Commercial Recycling Regulation requires that on and after July 1, 2012, certain businesses that generate four cubic yards or more of commercial solid waste per week shall arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939, the Integrated Waste Management Act. In April 2016, AB 1826 further modified the California Integrated Waste Management Act, requiring businesses that generate a specified amount of organic waste per week to arrange for recycling services for that organic waste in a specified manner. In September of 2020, CalRecycle determined that businesses generating more than two cubic yards of organic waste per week would be subject to these waste collection requirements. Diverting organic waste from landfills reduces emissions of CH_4. This is equivalent to reducing anaerobic decomposition of organic waste that would have otherwise occurred in landfills where organic waste is often buried with other inorganic waste.

Low Carbon Fuel Standard. In January 2007, EO S-01-07 established a Low Carbon Fuel Standard (LCFS). This executive order calls for a statewide goal to be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and that an LCFS for transportation fuels be established for California. The LCFS applies to all refiners, blenders, producers, or importers ("Providers") of transportation fuels in California, including fuels used by off-road construction equipment. In June 2007, CARB adopted the LCFS under AB 32 pursuant to Health and Safety Code Section 38560.5, and, in April 2009, CARB approved the new rules and carbon intensity reference values with new regulatory requirements taking effect in January 2011. The standards require providers of transportation fuels to report on the mix of fuels they provide and demonstrate they meet the LCFS intensity standards annually. This is accomplished by ensuring that the number of "credits" earned by providing fuels with a lower carbon intensity than the established baseline (or obtained from another party) is equal to or greater than the "deficits" earned from selling higher intensity fuels. In response to certain court rulings, CARB re-adopted the LCFS regulation in September 2015, and the LCFS went into effect on January 1, 2016. In 2018, CARB approved amendments to the regulation to readjust carbon intensity benchmarks to meet California's 2030 GHG reductions targets under SB 32. These amendments include opportunities to promote zero emission vehicle (ZEV) adoption, carbon capture and sequestration, and advanced technologies for decarbonization of the transportation sector.

Advanced Clean Cars Program. In January 2012, CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of ZEVs, into a single package of regulatory standards for vehicle model years 2017 through 2025. The new regulations strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's ZEVs regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the State. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 40 percent fewer GHGs and 75 percent fewer smog-forming emissions than 2012 model year vehicles.**Executive Order B-48-18.** In January 2018, Governor Brown signed EO B-48-18 requiring all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 electric vehicle charging stations by 2025. It specifies that 10,000 of the electric vehicle charging stations should be direct current fast chargers. This order also requires all State entities to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. The Governor's Office of Business and Economic Development is required to publish a Plug-in Charging Station Design Guidebook and update the 2015 Hydrogen Station Permitting Guidebook to aid in these efforts. All State entities are required to participate in updating the 2016 Zero-Emissions Vehicle Action Plan to help expand private investment in ZEV infrastructure with a focus on serving low-income and disadvantaged communities. Additionally, all State entities are to support and recommend policies and actions to expand ZEV infrastructure at residential land uses, through the LCFS Program, and recommend how to ensure affordability and accessibility for all drivers.

4.6.3.3 Regional Regulations

Southern California Association of Governments. The Southern California Association of Governments (SCAG) is a regional council consisting of the following six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In total, the SCAG region encompasses 191 cities and over 38,000 square miles within Southern California. SCAG is the MPO serving the region under federal law and serves as the Joint Powers Authority, the Regional Transportation Planning Agency, and the Council of Governments under State law. As the Regional Transportation Planning Agency, SCAG prepares long-range transportation plans for the Southern California region, including the RTP/SCS and the 2008 Regional Comprehensive Plan (RCP).

On April 4, 2024, SCAG adopted *Connect SoCal: The 2024–2050 Regional Transportation Plan/ Sustainable Communities Strategy* (2024–2050 RTP/SCS).[14] In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and

[14] Southern California Association of Governments (SCAG). 2024. *Connect SoCal: The 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments*. Website: https://scag.ca.gov/sites/main/files/file-attachments/23-2987-connect-socal-2024-final-complete-040424.pdf?1712261565 (accessed July 2024).

other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light-duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, CARB has set GHG reduction targets at 8 percent below 2005 per-capita emission levels by 2020 and 19 percent below 2005 per capita emission levels by 2035. The RTP/SCS lays out a strategy for the region to meet these targets. Overall, the SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high-quality transit areas and livable corridors, and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles.[15] However, the SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

South Coast Air Quality Management District. In 2008, the South Coast Air Quality Management District (SCAQMD) formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAQMD. The Working Group developed several different options that are contained in the SCAQMD 2008 draft guidance document titled *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* (2008) that could be applied by lead agencies. On September 28, 2010, SCAQMD Working Group Meeting No. 15 provided further guidance, including a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency. SCAQMD has not presented a finalized version of these thresholds to the governing board.

SCAQMD identifies the emissions level for which a project would not be expected to substantially conflict with any State legislation adopted to reduce statewide GHG emissions. As such, the utilization of a service population represents the rates of emissions needed to achieve a fair share of the State's mandated emissions reductions. Overall, SCAQMD identifies a GHG efficiency level that, when applied statewide or to a defined geographic area, would meet the 2020 and post-2020 emission targets as required by AB 32 and SB 32. If projects are able to achieve targeted rates of emissions per the service population, the State would be able to accommodate expected population growth and achieve economic development objectives while also abiding by AB 32's emissions target and future post-2020 targets. The SCAQMD has established a flowchart for evaluating GHG significance and indicates that when a project is exempt from CEQA, no further analysis is required.

4.6.3.4 Local Regulations

Dana Point Energy Efficiency and Conservation Plan. The Dana Point Energy Efficiency and Conservation Plan was adopted in December 2011.[16] This stand-alone plan identifies goals and measures that can be utilized to reduce energy consumption and promote conservation of natural resources. The Dana Point Energy Efficiency and Conservation Plan outlines seven goals for the City to use as pathways to future energy reduction and outlines GHG reduction goals. The goals cover both measures that City operations can undertake and measures the citizens of Dana Point can

[15] Southern California Association of Governments (SCAG). 2024. *Connect SoCal: The 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments*. Website: https://scag.ca.gov/sites/main/files/file-attachments/23-2987-connect-socal-2024-final-complete-040424.pdf?1712261565 (accessed July 2024).

[16] City of Dana Point. 2011. Dana Point Energy Efficiency and Conservation Plan. December.

accomplish within the community and they include: Energy Consumption, Sustainable Land Use and Development, Sustainable Construction, Effective Transportation, Water Efficiency and Conservation, Waste Reduction, and Public Education and Outreach. The goals' broader objectives can be briefly summarized as follows:

- Reduce energy use, and hence reduce greenhouse gas emissions.
- Promote sustainable land use and redevelopment.
- Encourage sustainable construction.
- Promote efficient transportation.
- Continue current efforts to conserve and efficiently use water.
- Reduce waste produced citywide and divert at minimum 50 percent of waste from landfills.
- Encourage public education and outreach in the community concerning energy reduction and sustainable behaviors.

Dana Point Harbor Revitalization Plan & District Regulations. The Dana Point Harbor Revitalization Plan & District Regulations (DPHRP&DR) were certified by the California Coastal Commission on October 6, 2011.[17] The DPHRP&DR established new land use policies and development standards for the needed upgrades to visitor serving and marina service areas of Dana Point Harbor. The DPHRP&DR designated planning areas are expected to be redeveloped over the next 5 to 20 years. This plan is designed to improve infrastructure, enhance public access opportunities, commercial and recreational amenities, water quality improvement, and coastal resource preservation. The DPHRP&DR do not include any specific policies related to greenhouse gas emissions; however, the following policies related to air quality are applicable to the Modified Project:

Policy 8.9.1-1: Encourage patterns of development necessary to minimize air pollution and vehicle miles traveled. (Coastal Act Section 30250)

Policy 8.9.1-2: Provide commercial areas that are conducive to pedestrian and bicycle circulation.

Policy 8.9.1-4: Assure the development of shuttle systems, train or transit facilities to help reduce vehicular trips and air pollution.

Policy 8.9.1-5: Should asbestos be determined to be present within the existing structures, the project shall comply with SCAQMD Rule 1403, Asbestos Emission from Demolition/Renovation Activities during the demolition process.

Policy 8.9.1-6: Lead-based paint removal shall be performed in accordance with California Code of Regulations Title 8, Section 1532.1, which provides for exposure limits, exposure monitoring and mandates good working practices by workers exposed to lead.

Policy 8.9.1-7: All finishing products used on-site shall meet applicable SCAQMD regulations for solvent content, as required by SCAQMD Rule 1102 and 1171.

[17] City of Dana Point. 2011. Dana Point Harbor Revitalization Plan & District Regulations. October.

Policy 8.9.1-8: To reduce long-term operation emissions from area sources (by implementing energy conservation measures and by reducing motor vehicle emissions) the following measures shall be implemented:

- Install energy-efficient street lighting on the site; and
- Landscape with native or non-invasive and drought-tolerant species to reduce water consumption and provide passive solar benefits, where feasible.

Policy 8.9-10: Reduction of vehicle trips is achieved by implementing the Transportation Management Plan, including:

- Shuttle service to off-site (remote) parking areas when necessary;
- Shuttle service to regional visitor attractions and for hotel guests;
- Seasonal water taxi service;
- Visitor boat slips and dingy docks located near restaurants and retail areas; and
- Phased construction of new development will minimize the size of areas subject to disruption from construction activities.

Policy 8.9.1-11: In order to reduce operational energy usage and reduce energy production air emissions, Harbor projects are required at a minimum to comply with Title 24 of the California Code of Regulations established by the California Energy Commission regarding energy conservation standards.

4.6.4 Methodology

4.6.4.1 Overview

Impacts related to GHG emissions and GCC were assessed in accordance with methodologies recommended by CARB and the SCAQMD. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

As previously stated, while the Original Project analysis utilized the CalEEMod version 2016.3.2 to quantify the construction and operational GHG emissions of the Original Project, CalEEMod version 2022.1 has since been approved and supersedes version 2016.3.2. As such, CalEEMod version 2022.1 was used to quantify the construction and operational GHG emissions of the Modified Project. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were primarily calculated using CalEEMod model defaults for Orange County. However, the length of construction is based on estimates provided by the project Applicant. Construction of the Modified Project is anticipated to begin in October 2025 and reach completion in May 2028 for an approximate 32-month schedule. Operational air pollutant emissions of the Modified Project were based on the Modified Project site plans and the estimated traffic trip generation rates from the *Traffic Impact Analysis for the Dana*

Point Harbor Hotels Project, Dana Point, Orange County, California (2025 Traffic Impact Analysis; TIA) (LSA 2025) (Appendix N to this Revised Draft EIR).

4.6.4.2 SCAQMD Interim Significance Thresholds

The City of Dana Point does not currently have formal Climate Action Plan, GHG emissions reduction plans, or recommended emissions thresholds for determining significance associated with GHG emissions from development projects. Therefore, the City of Dana Point accepts the interim significance thresholds recommended by the SCAQMD (2008).

As the SCAQMD has recognized, the analysis of GHGs is a much different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, significance thresholds are based on daily emissions because attainment or nonattainment is based on daily exceedances of applicable ambient air quality standards (AAQS). Furthermore, several AAQS are based on relatively short-term exposure effects on human health (e.g., 1-hour and 8-hour). However, since the half-life of CO_2 is approximately 100 years, the effects of GHGs are longer term and affect global climate over a relatively long time frame. As a result, the SCAQMD's current position is to evaluate GHG effects over a longer time frame than a single day.

The recommended approach for GHG analysis included in the Governor's Office of Planning and Research (OPR) June 2008 release is to (1) identify and quantify GHG emissions, (2) assess the significance of the impact on GHG, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact to below a level of significance. The June 2008 OPR guidance provides some additional direction regarding planning documents as follows:

> "CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation. For local government lead agencies, adoption of general plan policies and certification of general plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews."

The *State CEQA Guidelines* Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

While individual projects are unlikely to measurably affect GHG, each project incrementally contributes toward the potential for GHG on a cumulative basis, in concert with all other past, present, and probable future projects. However, despite this, neither the California Environmental Quality Act (CEQA) statutes nor the OPR guidelines, nor the *State CEQA Guidelines* currently prescribe thresholds of significance or a particular methodology for performing an impact analysis.

As with most environmental topics, significance criteria are left to the judgment and discretion of the lead agency.

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, the SCAQMD convened a GHG CEQA Significance Threshold Working Group. Based on the last Working Group meeting held in September 2010 (Meeting No. 15), the SCAQMD proposes a tiered approach be adopted for evaluating GHG emissions for development projects where it is not the lead agency[18]:

- **Tier 1. Exemptions:** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

- **Tier 2. Consistency with a locally adopted GHG Reduction Plan:** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

- **Tier 3. Numerical Screening Threshold:** If GHG emissions are less than the numerical screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD has established two options for assessing GHG emissions that are provided for lead agencies. Option 1 proposes a numerical screening-level threshold of 3,000 MT CO_2e per year for all land use types, and under Option 2, the following land-use-specific thresholds would apply: 1,400 MT CO_2e for commercial projects, 3,500 MT CO_2e for residential projects, or 3,000 MT CO_2e for mixed-use projects. This numerical screening-level threshold is based on a review of the OPR database of CEQA projects. Based on its review of 711 CEQA projects, 90 percent of CEQA projects would exceed the numerical screening threshold identified above. Therefore, projects that do not exceed the numerical screening threshold would have a nominal and therefore less than cumulatively considerable impact on GHG emissions:

- **Tier 4. Performance Standards:** If emissions exceed the applicable numerical screening threshold in Tier 3, a more detailed review of the project's GHG emissions is warranted. SCAQMD has proposed an efficiency target for projects that exceed the applicable numerical screening-level threshold. The current recommended approach is per capita efficiency targets. The SCAQMD is not recommending use of a percent emissions reduction target. Instead, SCAQMD proposes a 2035 efficiency target of 3.0 MT CO_2e per year per service population (MT CO_2e/year/SP) for project-level analyses and 4.1 MT CO_2e/year/SP for plan-level projects (e.g., program-level projects such as general plans). For CEQA purposes, the City as the lead agency has discretion to select an appropriate significance criterion, based on substantial

[18] South Coast Air Quality Management District (SCAQMD). 2008. *Draft Guidance Document – Interim CEQA GHG Significance.* October. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmentsa_d.pdf?sfvrsn=2 (accessed December 2020).

evidence for each discretionary project (SCAQMD 2020). The SCAQMD's adopted numerical threshold of 3,000 MT CO_2e for commercial land uses and 10,000 MT CO_2e for stationary source emissions from industrial uses, is selected as the significance criterion that has been supported by substantial evidence during SCAQMD adoption of its interim standards.

Bearing in mind that CEQA does not require "perfection" but instead "adequacy, completeness, and a good faith effort at full disclosure," the analysis below is based on methodologies and information available to the City and the project applicant at the time this analysis was prepared. Estimation of GHG emissions in the future does not account for all changes in technology that may reduce such emissions; therefore, the estimates are based on past performance and represent a scenario that is worse than that which is likely to be encountered (after energy-efficient technologies have been implemented). While information is presented below to assist the public and decision-makers in understanding the Modified Project's potential contribution to GHG impacts, the information available to the city is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts.

- **Tier 5. Off-Site Mitigation:** Under Tier 5**,** a project would implement off-site mitigation measures to offset project GHG emissions to less than the applicable screening levels. In order to meet these requirements, any project in the South Coast Air Basin that purchases GHG offsets would be required to do so for the life of the project, which is defined as 30 years. If a project fails to remain below the applicable screening levels during its life, the project would be considered significant.

4.6.5 Thresholds of Significance

The thresholds for GHG emissions impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The Modified Project may be deemed to have a significant impact with respect to GHG emissions if it would:

Threshold 4.6.1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? or,

Threshold 4.6.2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

4.6.6 Project Impacts

Threshold 4.6.1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact.

Construction. Construction of the Modified Project would generate GHG emissions, with the majority of energy consumption (and associated generation of GHG emissions) occurring during the project's operation (as opposed to during its construction). Typically, more than 80 percent of the

total energy consumption takes place during the use of buildings, and less than 20 percent of energy is consumed during construction (United Nations Environment Programme 2007).

During construction of the Modified Project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Table 4.6.B lists the annual GHG emissions for each of the planned construction phases.

Table 4.6.B: Regional GHG Construction Emissions

Construction Year	Greenhouse Gas Emissions, CO_2e (MT/yr)
2025	154.8
2026	1,255.2
2027	871.6
2027	14.7
Total Modified Project Emissions	**2,296.3**
Total Construction Emissions Amortized over 30 years	**76.5**

Source: Compiled by LSA (February 2025).
Note: Numbers may appear to not sum correctly due to rounding.
CO_2e = carbon dioxide equivalent
MT/yr = metric tons per year

Per the SCAQMD's guidance on Interim GHG significance thresholds, due to the long-term nature of the GHGs in the atmosphere, instead of determining significance of construction emissions alone, the total construction emissions are amortized over 30 years (a conservative estimate of the building life of a proposed project), added to the operational emissions, and compared to the applicable GHG significance threshold (SCAQMD 2008). As indicated in Table 4.6.B, total construction emissions would result in 2,296.3 MT CO_2e, which when amortized over 30 years would be 76.5 MT CO_2e. Amortized construction GHG emissions of 76.5 MT CO_2e per year have been added to the net operational GHG emissions shown in Table 4.6.C.

Table 4.6.C: Net New Project Operational Greenhouse Gas Emissions

Emissions Source	Operational Emissions (MT/yr)			
	CO_2	CH_4	N_2O	CO_2e
Existing Operational Emissions				
Existing Mobile Sources	2,058.9	0.1	0.1	2,091.6
Existing Area Sources	4.0	<.1	<0.1	4.0
Existing Energy Sources	1,083.7	0.1	<0.1	1,087.1
Existing Water Sources	7.4	0.1	<0.1	11.0

Table 4.6.C: Net New Project Operational Greenhouse Gas Emissions

Emissions Source	Operational Emissions (MT/yr)			
	CO_2	CH_4	N_2O	CO_2e
Existing Waste Sources	6.6	0.7	0.0	23.2
Total Existing Operational Emissions				**3,216.9**
Modified Project GHG Emissions				
Project Mobile Sources	3,592.8	0.1	0.1	3,640.8
Project Area Sources	4.5	<0.1	<0.1	4.5
Project Energy Sources	1,225.6	0.1	<0.1	1,229.4
Project Water Sources	14.7	0.2	<0.1	21.8
Project Waste Sources	14.6	1.5	0.0	51.1
Total Modified Project Operational Emissions				**4,947.6**
Amortized Construction Emissions				76.5
Total Modified Project Annual Emissions				**5,024.1**
Total Net New Annual Emissions				**1,807.2**
SCAQMD Threshold				3,000
Exceed?				**No**

Source: Compiled by LSA (February 2025).

CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
MT/yr = metric tons per year
N_2O = nitrous oxide
SCAQMD = South Coast Air Quality Management District

Operation. Long-term operation of the Modified Project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. The emission calculations for the Modified Project include credits or reductions for consistency with regulatory requirements set forth in this GHG analysis, such as reductions in energy or water demand (compliance with 2020 California Green Building Standards Code [CALGreen Code]). Operational and construction GHG emissions, as shown in Table 4.6.C, were calculated using CalEEMod.

Mobile-source emissions of GHGs would include vehicle trips associated with the Modified Project. Area-source emissions would be associated with small activities including landscaping and maintenance of proposed land uses. Increases in stationary-source emissions would also occur at off-site electrical utility providers as a result of demand for electricity by the Modified Project.

As shown in Table 4.6.C, the Modified Project would generate 4,947.6 MT CO_2e per year, which is a net increase of 1,730.7 MT CO_2e per year when compared to the existing uses at the project site. After amortized construction emissions are added, the total net operational emissions increase would be 1,807.2 MT CO_2e per year with implementation of the Modified Project.

Therefore, the Modified Project's incremental GHG emissions are less than the SCAQMD Tier 3 threshold of 3,000 MT CO_2e per year for all land use types. SCAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions.

Since emissions associated with the Modified Project would be below this threshold, environmental impacts related to GHG emissions would not be cumulatively considerable under CEQA. Similar to the Original Project, impacts related to operational GHG emissions would be less than significant under the Modified Project, and no mitigation would be required.

Threshold 4.6.2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The following discussion analyzes the Modified Project's consistency with several plans, policies, and regulations adopted for the purpose of reducing GHG emissions.

2022 Climate Change Scoping Plan.[19] The Original Project was analyzed under the 2017 CARB Scoping Plan. The CARB Scoping plan has since been superseded by the current 2022 version. The 2022 Scoping Plan includes measures to achieve carbon neutrality no later than 2045, consistent with AB 1279. Therefore, the following discussion evaluates the Modified Project according to the goals of the 2022 Scoping Plan, EO B-30-15, SB 32, AB 197, and AB 1279.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[20] to reflect the 2030 target set by EO B-30-15 and codified by SB 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. SB 32 builds on AB 32 and keeps the State on the path toward achieving the 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197, intended to provide easier public access to air emissions data collected by CARB, was posted in December 2016. AB 1279 codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter.

In addition, the 2022 Scoping Plan assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing emissions reduction measures for clean energy, water conservation, transportation and motor vehicles, natural and working lands, and other emissions sources. The Scoping Plan 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.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of

[19] CARB. 2022b. 2022 Scoping Plan Documents. Website: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents (accessed October 2024).

[20] CARB. 2017a. *California's 2017 Climate Change Scoping Plan*. November. Website: ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf (accessed June 2024).

green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The Modified Project would comply with the CALGreen Code regarding energy conservation and green building standards. Although the Modified Project is proposed to include the use of natural gas during operations, natural gas service is currently provided to the project site under existing conditions. As such, with compliance with the CALGreen Code, the Modified Project would not conflict with the State's energy goals.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the Modified Project would comply with the CALGreen Code, which includes a variety of different measures, including the reduction of wastewater and water use. Therefore, the Modified Project would not conflict with any of the water conservation and efficiency measures.

Transportation and motor vehicle measures in the 2022 Scoping Plan consist of a set of policies and strategies that aim to significantly reduce GHG emissions from the transportation sector, focusing primarily on transitioning to ZEVs, promoting public transit, and reducing vehicle miles traveled (VMT), with the goal of achieving carbon neutrality. The goal of the transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the Modified Project since they are designed to be implemented through regional and local transportation planning and not at the project level. However, the Modified Project would generally be consistent with strategies related to EV infrastructure, promoting alternative forms of transportation and encouraging the use of public transit, and reducing VMT. Furthermore, AB 1493, also known as the Pavley standards, placed limits on the amount of GHGs that passenger vehicles could emit and is set to reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025. Vehicles traveling to the project site would be required to comply with the Pavley standards (LEV III) Advanced Clean Cars Program. Therefore, the Modified Project would not conflict with the identified transportation and motor vehicle measures.

The Modified Project would comply with all regulations adopted for the purpose of reducing GHG emissions. As described in the Chapter 3.0, Project Description, the Modified Project is implementing green building design features to reduce emissions, where feasible, such as electric vehicle charging stations, passive solar design, and water and energy efficient measures. Therefore, the Modified Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the GHG emissions.

Regional Transportation Plan/Sustainable Communities Strategy. At the regional level, the Connect SoCal 2024 RTP/SCS is the applicable plan adopted for the purpose of reducing GHGs. Generally, projects are consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. The Modified Project is expected to generate moderate amounts of GHG emissions, due to the nature of the project as hotel lodging, dining, and boater services. Because the Modified Project is consistent with the land use designations/ districts contained in the Dana Point Harbor Revitalization Plan and District Regulations (DPHRP&DR), the 1991 General Plan, and the Dana Point Energy Efficiency and

Conservation Plan, the Modified Project would be consistent with the GHG reduction-related actions and strategies contained in the Connect SoCal 2024 RTP/SCS. The Modified Project's consistency with the Connect SoCal 2024 RTP/SCS goals is analyzed in detail in Table 4.6.D.

Table 4.6.D: Project Consistency with the City's Greenhouse Gas Emissions Reduction Measures

Dana Point Energy Efficiency And Conservation Plan Goals	Modified Project Consistency
1. **Energy Consumption:** Reduce energy use, and hence reduce greenhouse gas emissions.	**Consistent.** The Modified Project would include a variety of green building, water, and solid waste efficiencies consistent with 2022 California Green Building Standards Code requirements**.**
2. Sustainable Land Use and Development: Promote sustainable land use and redevelopment.	**Consistent.** The Modified Project would include a variety of green building, water, and solid waste efficiencies consistent with 2022 California Green Building Standards Code requirements.
3. Sustainable Construction: Encourage sustainable construction.	**Consistent.** The Modified Project would include the use of recyclable and green waste collection programs in accordance with 2022 California Green Building Standards Code requirements.
4. Efficient Transportation: Promote efficient transportation.	**Consistent.** The Modified Project would include the installation of electric vehicle charging stations in the parking lots. In addition, the Modified Project would provide hotel guests with complimentary shuttle service to other destinations within the Harbor (i.e., Baby Beach, the Ocean Institute, and Doheny State Beach) using electric golf carts.
5. Water Efficiency and Conservation: Continue current efforts to conserve and efficiently use water.	**Consistent.** The Modified Project would include the use of low-flow fixtures and irrigation systems.
6. Waste Reduction: Continue improving the implemented programs that divert waste from landfills in accordance with AB 939.	**Consistent.** The Modified Project would include waste reduction practices to reduce waste to comply with the State's initiatives.
7. **Public Education and Outreach:** Encourage public education and outreach in the community concerning energy reduction and sustainable behaviors.	**Consistent:** The hotel management would post signs to inform employees and patrons to conserve water and electricity.

Implementing SCAG's 2024 RTP/SCS will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emissions reduction targets. The Modified Project would provide an infill mixed commercial and service development situated near existing local bus lines and stops. Furthermore, as demonstrated in Section 4.2, Air Quality Threshold 4.2.1, the Modified Project does not meet the criteria identified in *State CEQA Guidelines* Section 15205.b.2 (Projects of Statewide, Regional, or Areawide Significance) for projects of Statewide, regional, or areawide significance. In addition, the Modified Project would not require a change to the General Plan land use designation, and the Zone Text Amendment (ZTA) and Local Coastal Program Amendment (LCPA) required for the Modified Project, have been approved by the California Coastal Commission (June 2024) with modifications, and adopted by the City and therefore, the zoning would be consistent with the City's General Plan and Zoning Ordinance. As such, the Modified Project would not interfere with SCAG's ability to achieve the region's GHG reduction target of 19

percent below 2005 per capita emissions levels by 2035. Furthermore, the Modified Project is not regionally significant per *State CEQA Guidelines* Section 15206 and, as such, it would not conflict with the SCAG RTP/SCS targets because those targets were established and are applicable on a regional level. Therefore, it is anticipated that implementation of the Modified Project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS.

City of Dana Point GHG Reduction Measures. The City's Energy Efficiency and Conservation Plan includes GHG reduction strategies in the sectors of land use and transportation, energy efficiency, solid waste, urban greening, and energy generation and storage to reach the City's GHG reduction targets. The Modified Project would include several design features under Title 24 and 2022 California Green Building Standards Code requirements, which would result in reduced GHG emissions, consistent with the goals of the City's Energy Efficiency and Conservation Plan. Table 4.6.D provides the Modified Project's consistency with the City's applicable GHG reduction measures. Table 4.6.E provides the Modified Project's consistency with the DPHRP&DR.

Table 4.6.E: Project Consistency with the City's Harbor Emissions Reduction Measures

Applicable Dana Point Harbor Revitalization Plan & District Regulations	Modified Project Consistency
5.2.1-12 Hotel operators shall provide hotel guests with access to a free on-demand regional service shuttle connecting to a public regional trolley or public transportation service, and hotel employees who take public transit to work shall receive fully subsidized public transit passes.	**Consistent.** The Modified Project would provide hotel guests with a complimentary shuttle service to nearby trolley and transit stops, and would also be conditioned to fully subsidize employees who take public transit to work resulting in reduced vehicle miles traveled (VMT) and related emissions by hotel patrons and employees using public transportation to get to work.
5.2.1-13 Electric vehicle (EV) charging stations and parking stalls shall be allocated throughout both hotel parking areas in accordance with minimum CALGreen standards. The charging stations shall be available for use by the general public and provide multi-lingual signage to indicate this availability, shall provide multiple options for form of payment, and shall provide charging connectors and/or adapters to support the broadest charging access for various EVs possible. In addition, onsite bicycle parking shall be provided consistent with the requirements of the Local Coastal Program, including racks and charging stations available to accommodate electric bicycles and scooters.	**Consistent:** As discussed in Chapter 3.0, Project Description, of this Revised Draft EIR, consistent with the 2022 California Green Building Standards Code (CALGreen Code) and Title 24 requirements, the Modified Project would include both electric vehicle (EV) charging stations and EV capable spaces. Further, in order to encourage bicycling to and from the project site, the Modified Project design would also include bicycle parking areas, including chargers for electric bicycles and scooters.
5.2.1-14 To reduce long-term operation emissions from area sources, the hotel design shall implement energy conservation measures, such as roof-mounted solar panels, energy- efficient and bird/marine environment-safe lighting, fixtures, and appliances.	**Consistent.** As discussed in Chapter 3.0, Project Description, of this Revised Draft EIR, the Modified Project would incorporate passive solar design, efficient low e-glazing, water conserving plumbing fixtures and fittings, outdoor water use metering, construction waste reduction, efficient variable refrigerant flow (VRF) heating and air-conditioning system design, low power consumption for lighting design and dimming systems, and insulation and sealing of the exterior envelope.

Table 4.6.E: Project Consistency with the City's Harbor Emissions Reduction Measures

Applicable Dana Point Harbor Revitalization Plan & District Regulations	Modified Project Consistency
5.2.1-15 Hotel operations shall minimize plastic consumption, waste, and litter. Coordination of a Marine Debris Reduction Program is required, as is membership or certification via an established program. The Marine Debris Reduction Program shall ensure measures to avoid and divert food waste.	**Consistent.** The Modified Project would coordinate a Marine Debris Reduction Program that would ensure measures to avoid and divert food waste from entering landfills. Further, operation of the Modified Project would minimize the use of single-use plastic containers whenever feasible.
8.9.1-1: Encourage patterns of development necessary to minimize air pollution and vehicle miles traveled. (Coastal Act Section 30250)	**Consistent.** The Modified Project would be located within walking distance to commercial and recreational uses and is adjacent to existing alternative transportation infrastructure, including an Orange County Transportation Authority (OCTA) bus stop and Dana Point Trolley Service stop. In addition, the Modified Project would provide hotel guests with a complimentary shuttle service to other destinations within the Harbor using electric golf carts. Pedestrian access, electric golf cart shuttle service, and proximity to transit would result in reduced VMT and related emissions by hotel patrons.
8.9.1-2: Provide commercial areas that are conducive to pedestrian and bicycle circulation.	**Consistent.** The Modified Project would include the installation of pedestrian friendly walkways and provide bicycle parking spaces. In addition, as noted above, both hotels would be within walking and biking distance of the Harbor Commercial Core.
8.9.1-4: Assure the development of shuttle systems, train or transit facilities to help reduce vehicular trips and air pollution.	**Consistent.** The Modified Project would provide hotel guests with a complimentary electric golf cart shuttle service to attractions within the Harbor. In addition, the project site is located near a bus stop, which would encourage employees and patrons to use transit, thereby helping to reduce vehicular trips and air pollution.
8.9.1-5: Should asbestos be determined to be present within the existing structures, the project shall comply with SCAQMD Rule 1403, Asbestos Emission from Demolition/Renovation Activities during the demolition process.	**Consistent.** The Modified Project will comply with the requirements of the South Coast Air Quality Management District (SCAQMD) Rule 1403 during the demolition process.
8.9.1-6: Lead-based paint removal shall be performed in accordance with California Code of Regulations Title 8, Section 1532.1, which provides for exposure limits, exposure monitoring and mandates good working practices by workers exposed to lead.	**Consistent.** The Modified Project will comply with the requirements of the California Code of Regulations Title 8, Section 1532.1 during the demolition and paint removal process.
8.9.1-7: All finishing products used on-site shall meet applicable SCAQMD regulations for solvent content, as required by SCAQMD Rule 1102 and 1171.	**Consistent.** The Modified Project will comply with the requirements of the SCAQMD Rules 1102 and 1171 during construction and re-application process.

Table 4.6.E: Project Consistency with the City's Harbor Emissions Reduction Measures

Applicable Dana Point Harbor Revitalization Plan & District Regulations	Modified Project Consistency
8.9.1-8: To reduce long-term operation emissions from area sources (by implementing energy conservation measures and by reducing motor vehicle emissions) the following measures shall be implemented: • Install energy-efficient street lighting on the site; and • Landscape with native or non-invasive and drought-tolerant species to reduce water consumption and provide passive solar benefits, where feasible.	**Consistent.** The Modified Project will comply with the requirements of 2022 California Building Energy Efficiency Standards (Title 24, Part 6) including measures to incorporate energy-efficient lighting and water efficient landscaping and irrigation, which include measures to increase water use efficiency. Water-efficient irrigation systems and devices and drought-tolerant landscaping will be installed on the project site.
8.9.1-10: Reduction of vehicle trips is achieved by implementing the Transportation Management Plan, including: • Shuttle service to off-site (remote) parking areas when necessary; • Shuttle service to regional visitor attractions and for hotel guests; • Seasonal water taxi service; • Visitor boat slips and dingy docks located near restaurants and retail areas; and • Phased construction of new development will minimize the size of areas subject to disruption from construction activities.	**Consistent.** The Modified Project would provide shuttle services to off-site parking areas for hotel patrons and construction workers during construction and would not inhibit the opportunity to use water taxi services. Construction of hotel development and parking lots will occur in phases to minimize disruption to other areas in the Harbor. In addition to providing hotel guests with a complimentary electric golf cart shuttle service to attractions within the Harbor, the Modified Project would be located within walking distance from a Dana Point Trolley Service stop, which provides free shuttle service to visitor attractions in Dana Point and connections to similar trolley services in Laguna Beach, San Juan Capistrano, and San Clemente during the summer months—the City's peak season for tourism. The Modified Project would provide restaurants and retail space a short distance from the guest slips in the West Cove marina.
8.9.1-11: In order to reduce operational energy usage and reduce energy production air emissions, Harbor projects are required at a minimum to comply with Title 24 of the California Code of Regulations established by the California Energy Commission regarding energy conservation standards.	**Consistent.** The Modified Project will comply with the requirements of 2022 California Building Energy Efficiency Standards (Title 24, Part 6) including measures to incorporate energy-efficient buildings design features, such as passive solar design and low power consumption for lighting design and dimming systems.

As shown in Table 4.6.E, the Modified Project would not conflict with the stated GHG emissions reduction goals of the City's Dana Point Energy Efficiency And Conservation Plan or the DPHRP&DR; therefore, the Modified Project would not conflict with the Dana Point Energy Efficiency and Conservation Plan or the DPHRP&DR.

Summary. As discussed above, the Modified Project would not conflict with SCAG's Connect SoCal 2024 RTP/SCS, the Dana Point Energy Efficiency and Conservation Plan, the City's 1991 General Plan, or the DPHRP&DR. The Modified Project would also be consistent with long-term State goals for GHG emissions reductions, as included in the 2022 Scoping Plan and associated State legislation, including SB 32 and AB 1279. Therefore, the Modified Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the GHG emissions. Impacts under the Modified Project would be less than significant, similar to the Original Project, and no mitigation is required.

4.6.7 Level of Significance Prior to Mitigation

The Modified Project would comply with all regulations adopted for the purpose of reducing GHG emissions. Therefore, impacts would be less than significant, and no mitigation is required.

4.6.8 Standard Conditions and Mitigation Measures

No standard conditions are applicable to the Modified Project, and no mitigation is required.

4.6.9 Level of Significance after Mitigation

Construction and operational impacts related to GHG emissions would be less than significant under the Modified Project. No mitigation is required.

4.6.10 Cumulative Impacts

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 GHG emissions. GHG emissions are global pollutants, and therefore, result in global cumulative impacts by nature. Consequently, it is speculative to determine how an individual project's GHG emissions would impact California's GHG emissions. As such, impacts identified under Section 4.6.6, Project Impacts, are not project-specific impacts to GCC but are the Modified Project's contribution to this cumulative impact.

The Modified Project's emissions are less than the SCAQMD Tier 3 threshold of 3,000 MT CO_2e per year for all land use types and, therefore, environmental impacts related to GHG emissions and GCC would not be cumulatively considerable under CEQA. The Modified Project, in conjunction with other cumulative projects, would be subject to all applicable regulatory requirements, which would further reduce GHG emissions. Further, the Modified Project would not conflict with SCAG's Connect SoCal 2024 RTP/SCS. Therefore, the Modified Project's cumulative contribution of GHG emissions would be less than significant, and cumulative GHG impacts would also be less than cumulatively considerable Based on the analysis presented above, the Modified Project would not conflict with any applicable plan, policy, or regulation (Federal, State, regional, or local) adopted for the purpose of reducing the GHG emissions. Impacts would be less than significant.

Furthermore, one of the key concerns associated with climate change is the effect that sea level rise may have on coastal communities like Dana Point, which depends on coastal and ocean-related tourism. The range of sea level rise scenarios that are possible is particularly relevant to the project due to its location in Dana Point Harbor. As discussed in Section 4.9, Land Use and Planning, Anchor QEA, LLC, prepared a memorandum addressing the potential coastal hazards that could affect the Modified Project (Coastal Hazards Memorandum, February 2025). The Coastal Hazards Memorandum is included in Appendix H to this Revised Draft EIR. The Coastal Hazards Memorandum concluded that the lower podium level of Dana House Hotel when accounting for sea level rise in conjunction with the 100-year wave run-up elevation in the intermediate-high scenario for 2100 could result in the inundation of the unoccupied parking garage. The Coastal Hazards Memorandum further explained that the lowest occupied floor in the Dana House Hotel lower podium might experience inundation near 2085; however, the Ocean Protection Council's updated State of California Sea Level Rise Guidance for the intermediate-high scenario explains there is a 0.1

percent probability that sea level rise would exceed 4.5 feet by the analysis horizon year of 2100. It should be noted that the podium level of Dana House Hotel consists mainly of a parking garage and enclosed, non-habitable back of the house functions (storage, laundry, employee lounge, etc.) and separately accessed non-habitable boater service facilities, and does not contain any guest rooms. As such, no overnight hotel accommodations in either Dana House Hotel or Surf Lodge would be subject to these inundation areas, even in this speculative condition occurring approximately 72 years beyond project opening. Further, to reduce the risk of flooding in the parking garage and basement of Dana House, a multitude of perimeter trench drains and area floor drains directed to sump pumps are included in the Modified Project design. The basement of Dana House Hotel would be designed with special flood-proof doors and window systems and constructed of concrete masonry units. In addition, prior to 2055 (the earliest time that sea level rise could overtop the bulkhead), reevaluation of resilience measures will be undertaken based on the data that will be available at that future date. Lastly, additional GHG reduction strategies implemented at the State, national, and international levels could reduce future sea level rise, especially for the year 2100 scenario. Therefore, due to the speculative nature of these conditions and protective measures incorporated to the design of the Modified Project, the Modified Project would not be adversely impacted by sea level rise due to climate change.