

APPENDIX D

Greenhouse Gas Emissions Technical Report

Technical Study

TO: Long Beach Development Services, Planning Bureau
C/O Amy Harbin, Planner
411 West Ocean Boulevard, 3rd Floor
Long Beach, CA 90802

FROM: Terry A. Hayes Associates Inc.
3535 Hayden Avenue, Suite 350
Culver City, CA 90232

DATE: April 12, 2023

RE: **Shoreline Village Renovation Project – Greenhouse Gas Emissions Assessment**

Introduction

Terry A. Hayes Associates Inc. (TAHA) completed a Greenhouse Gas Emissions (GHG) Assessment for the Shoreline Village Renovation Project (proposed project) in accordance with provisions of California Environmental Quality Act (CEQA) Statutes and Guidelines. This Assessment is organized as follows:

- Project Description
- Climate Change Topical Information
- Regulatory Framework
- Existing Setting
- Significance Thresholds and Local Standards
- Methodology
- Impact Assessment
- References

Project Description

The project site is located at 401-435 Shoreline Village Drive in the City of Long Beach on a 313,739-square-foot lot. The proposed project is located in an urban area surrounded by commercial and recreational uses. The project site is bounded to the north by Shoreline Drive, the Marina Green recreational park to the east, Shoreline Village Marina to the south and east, Long Beach Harbor to the south, and Rainbow Harbor and Shoreline Aquatic Park to the west. The existing project site is comprised of a series of commercial buildings, ancillary structures, and surface parking lots. The proposed project includes a combination of renovations, demolitions, and new construction. Building 419 would be renovated to accommodate 169 square feet of converted interior retail space, 551 square feet of new retail space, and 720 square feet of interior restroom facilities. Additional improvements include the replacement or repair of exterior cladding, new windows/doors/storefronts, and new signage, as well as the expansion of the roof and awnings.

Demolition activities would include Buildings 421 (179 square feet) and 425 (859 square feet), which are two kiosk structures located along the northwest boundary of the project site adjacent to Rainbow Harbor. Building 411, a 4,481 square foot circular tower structure currently occupied by an arcade, would be demolished to accommodate the construction of two new buildings. After demolition of Building 411, the proposed project would construct two new semi-circular buildings totaling 1,270 square feet of retail uses. The two buildings would be oriented in a circular pattern around 1,200 square feet of new outdoor public seating areas.

The proposed project would also construct a two-level, 227-stall parking structure over the existing surface parking area along Shoreline Village Drive, resulting in a net gain of 80 parking stalls compared to existing conditions. The parking garage footprint would be 35,268 square feet and include two levels of parking, for approximately 70,536 square feet of floor area. The total parking area with proposed project implementation is anticipated to accommodate 395 standard-sized parking stalls, including 24 electric vehicle charging stalls, as well as 112 compact parking stalls. On the ground floor, the new parking structure would also accommodate 650 square feet of retail space as well as 1,871 square feet for 28 bicycle storage spaces. Mural artworks and green landscaping walls would be installed on the façade of the parking garage. Additional site improvements would also include the following newly remodeled public areas: the Hub Plaza, the boardwalk along the northern boundary of the project site fronting Rainbow Harbor, two view corridors within the pedestrian circulation network, Harborside Plaza, and a 700 square foot public viewing deck located on the southern boundary of the project site. Remodeled public areas would be enhanced with new paving, seating and other site furnishings.

Regarding transportation improvements, the surface parking lots on the southern and northern ends of the project site would be repaved, restriped, and landscaped. New parking gates/pay stations would be installed at the access entry points to the project site along Shoreline Village Drive, as well as new stalls with electric vehicle chargers for electric vehicles. The proposed project would not construct new ingress or egress access points to the surface parking lots. The proposed project would also construct a new bike path connection between the existing path along Rainbow Harbor and the Marina Green bike path.

The overall components of the proposed project would result in no net change in the commercial area of 82,368 square feet per the original entitlement. All buildings constructed for the proposed project would be designed to achieve Leadership in Energy and Environmental Design (LEED) Certification. The proposed project would incorporate high efficiency lighting fixtures and water conservation strategies into the newly renovated and constructed buildings.

Construction of the proposed project is anticipated to start in November 2024 and would take approximately 18 months to complete with operations estimated to start in May 2026. Construction activities would generally occur five days per week from Monday through Friday between the hours of 7:00 am to 7:00 pm during the weekdays and 9:00 am to 6:00 pm on Saturdays pursuant to Section 8.80.202 of the Long Beach Municipal Code. Construction activities would require approximately 30 workers per day. Approximately 3,200 cubic yards of soil would be exported related to the parking structure foundation.

Climate Change Topical Background

Climate change refers to variations in average long-term meteorological conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and frequency and severity of extreme weather events. Historical records indicate that global climate fluctuations have occurred in the past due to natural phenomena; however, recent data increasingly suggests that the current global conditions are distinct from previous patterns and are influenced by anthropogenic (human-sourced) greenhouse gas (GHG) emissions. GHGs are a class of pollutants that are generally understood to play a critical role in controlling atmospheric temperature near the Earth’s surface by allowing high frequency shortwave solar radiation to enter the planet’s atmosphere and then subsequently trapping low frequency infrared radiative energy that would otherwise emanate back out into space. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes; the glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. The levels of GHGs in the atmosphere affect how much heat energy can be absorbed.

Radiative forcing is an expression of the net difference in energy entering Earth’s atmosphere versus leaving it. Each GHG possesses its own degree of climate forcing ability to absorb low frequency infrared energy, meaning that some GHGs are more effective in trapping heat in the atmosphere than others. Water vapor is the most environmentally prevalent GHG, however, definitive methods are not established to regulate emissions and concentrations of water vapor in the atmosphere. After water vapor, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) are the most ubiquitous GHGs, and CO₂ is commonly used as the standard reference for characterizing the relative global warming potential (GWP) of other GHGs. The GWP value describes the relative magnitude of climate forcing effects of GHGs and is used to convert emissions into CO₂-equivalents (CO₂e). **Table 1** presents the GWP value and atmospheric lifetime of CO₂, CH₄, and N₂O, as well as other regulated GHGs emitted by human activities. GHG emissions that would be generated by the proposed project are assessed in units of metric tons of CO₂e (MTCO₂e).

TABLE 1: GLOBAL WARMING POTENTIAL FOR VARIOUS GREENHOUSE GASES			
Pollutant	Lifetime (Years) /a/	Global Warming Potential (20-Year)	Global Warming Potential (100-Year) /b/
Carbon Dioxide (CO ₂)	--	1	1
Methane (CH ₄)	12	21	25
Nitrous Oxide (N ₂ O)	114	310	298
Nitrogen Trifluoride	740	Unknown	17,200
Sulfur Hexafluoride (SF ₆)	3,200	23,900	22,800
Perfluorocarbons (PFCs)	2,600-50,000	6,500-9,200	7,390-12,200
Hydrofluorocarbons (HFCs)	1-270	140-11,700	124-14,800

/a/ Lifetime refers to the approximate amount of time it would take for the anthropogenic increment to an atmospheric pollutant concentration to return to its natural level as a result of either being converted to another chemical compound or being taken out of the atmosphere via a sink.

/b/ The United States primarily uses the 100-year GWP as a measure of the relative impact of different GHGs. However, the scientific community has developed a number of other metrics that could be used for comparing one GHG to another. These metrics may differ based on timeframe, the climate endpoint measured, or the method of calculation. For example, the 20-year GWP is sometimes used as an alternative to the 100-year GWP. Just like the 100-year GWP is based on the energy absorbed by a gas over 100 years, the 20-year GWP is based on the energy absorbed over 20 years. This 20-year GWP prioritizes gases with shorter lifetimes, because it does not consider impacts that happen more than 20 years after the emissions occur. Because all GWPs are calculated relative to CO₂, GWPs based on a shorter timeframe will be larger for gases with lifetimes shorter than that of CO₂, and smaller for gases with lifetimes longer than CO₂.

SOURCE: CARB, *Global Warming Potentials*, <https://www.arb.ca.gov/cc/inventory/background/gwp.htm>, accessed January 4, 2023.

Existing Setting

Emissions of GHGs are the result of both natural and human-influenced activities. Volcanic activity, forest fires, decomposition, industrial processes, landfills, consumption of fossil fuels for power generation, transportation, heating, and cooling are the primary sources of GHG emissions. Without human activity, the Earth would maintain an approximate, but varied, balance between the emission of GHGs into the atmosphere and the storage of GHG in oceans and terrestrial ecosystems. Increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.) has contributed to a rapid increase in atmospheric levels of GHGs over the last 150 years.

Table 2 shows statewide GHG emissions inventory from 2010 to 2020 compiled by the California Air Resources Board (CARB), the State agency with jurisdiction over air pollutant emissions. California’s GHG emissions have followed a declining trend since 2008. In 2019, emissions from routine emitting activities statewide were 7.1 million metric tons of CO₂e (MMTCO₂e) lower than 2018 levels and almost 13 MMTCO₂e below the 2020 GHG limit of 431 MMTCO₂e. Of note, between October 23, 2015, and February 18, 2016, an exceptional natural gas leak event occurred at the Aliso Canyon natural gas storage facility that resulted in unexpected GHG emissions of considerable magnitude.

TABLE 2: CALIFORNIA GREENHOUSE GAS EMISSIONS INVENTORY TREND											
Sector	CO₂e Emissions (Million Metric Tons)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Electricity Generation (In-State)	46.7	42.6	54.5	53.5	53.0	52.0	44.1	40.2	40.4	38.5	40.9
Electricity Generation (Imports)	43.6	46.6	44.4	40.0	36.8	33.9	26.4	23.9	24.6	21.7	18.6
Transportation	162.9	159.5	156.9	157.0	157.7	161.5	165.2	166.6	165.3	162.4	135.8
Industrial	87.8	85.8	80.7	83.0	85.2	83.2	81.6	81.7	81.9	80.4	73.3
Commercial and Residential	46.0	46.0	39.2	39.1	35.6	36.3	37.2	37.6	37.4	40.5	38.7
Agriculture	33.6	34.2	35.2	33.9	33.9	32.6	32.2	31.7	32.2	31.4	31.6
High GWP	13.5	14.5	15.5	16.8	17.7	18.6	19.4	20.1	20.5	20.7	21.3
Recycling and Waste	8.1	8.2	8.2	8.3	8.3	8.4	8.5	8.6	8.7	8.8	8.9
Emissions Total	442.2	437.4	434.6	431.5	428.2	426.6	414.5	410.5	411.0	404.4	369.1

SOURCE: CARB, *California Greenhouse Gas Emission Inventory - 2022 Edition*; Data available at: <https://ww3.arb.ca.gov/cc/inventory/data/data.htm>.

The exceptional incident released approximately 109,000 metric tons of CH₄, which equated to approximately 1.96 MMTCO₂e of unanticipated emissions in 2015 and an additional 0.52 MMTCO₂e in 2016. According to CARB, these emissions will be mitigated in the future through projects funded by the Southern California Gas Company based on legal settlement and are presented alongside but tracked separately from routine inventory emissions.^{1,2}

Regional and local GHG emissions inventories have also been prepared in recent years. For the Southern California Association of Governments (SCAG) region, development of the 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) included a Metropolitan Planning Area-wide GHG

¹CARB, *California Greenhouse Gas Inventory for 2000–2020 – Trends of Emissions and Other Indicators*, July 2022.

²CARB, *Determination of Total Methane Emissions from the Aliso Canyon Natural Gas Leak Incident*, October 2016.

emissions inventory for the base year of 2012, as well as a projection for the year 2020.³ Similar to the California GHG emissions profile, transportation, industrial, and electricity uses represented the greatest contributors to the inventory. Total SCAG emissions were forecasted to be approximately 216 MMTCO₂e in 2020, with approximately 38.5 percent of emissions within the SCAG region being attributed to the transportation sector. SCAG modeling prepared to support the Program Environmental Impact Report for the Connect SoCal plan estimated that in 2019, on-road light, medium, and heavy-duty vehicle GHG emissions were approximately 75.8 MMTCO₂e, of which 37.6 MMTCO₂e—approximately 50 percent—occurred within Los Angeles County.⁴

Regulatory Framework

There are many federal, State, regional, and local regulations and policies related to climate change and GHG emissions. The following list is not designed to be a comprehensive list of regulations and policies and is focused on select regulations and policies that are pertinent to the proposed project.

Federal

Massachusetts vs. Environmental Protection Agency, 127 S. Ct. 1438 (2007). A Supreme Court ruling that CO₂ and other GHGs are pollutants under the Clean Air Act.

Energy Independence and Security Act. This act set a Renewable Fuel Standard of 36 billion gallons of biofuel usage by 2022, increases Corporate Average Fuel Economy Standards of setting 35 miles per gallon of cars and light trucks by 2020 and sets new standards for lighting and residential and commercial appliance equipment.

National Fuel Efficiency Policy and Fuel Economy Standards. This 2009 policy was designed to increase fuel economy by more than five percent by 2016 starting with model year 2012 cars and trucks.

Heavy-Duty Vehicle Program. This 2011 program established the first fuel efficiency requirements for medium- and heavy-duty vehicles beginning with model year 2014.

State

California Building Energy Efficiency Standards (Title 24, Part 6). The California Building Energy Efficiency Standards for Residential and Non-residential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The 2019 Title 24 Standards went into effect on January 1, 2020. The 2019 Title 24 Standards represent “challenging but achievable design and construction practices” that represent a major step towards meeting the Zero Net Energy (ZNE) goal.” Homes built with the 2019 standards will use about seven percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those built under the 2016 standards. The California Building Code is updated triennially and is expected to become more energy efficient with each update.

³SCAG, *Final South California Association of Governments (SCAG) Regional Greenhouse Gas Inventory and Reference Case Projections, 1990-2035*, May 2012.

⁴SCAG, *Draft Program Environmental Impact Report for Connect SoCal*, December 2019.

California Green Building Standards (Title 24, Part 11). The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, includes mandatory measures related to energy efficiency, water efficiency and conservation, material conservation, resource efficiency, and environmental quality. Compliance with the CALGreen Code is enforced through the building permit process.

Senate Bill 1078 (SB 1078), Senate Bill 107 (SB 107), Executive Order (E.O.) S-14-08 (Renewables Portfolio Standard), and Senate Bill 100 (SB 100). Signed on September 12, 2002, SB 1078 required California to generate 20 percent of its electricity from renewable energy by 2017. SB 107, signed on September 26, 2006, changed the due date for this goal from 2017 to 2010, which was achieved by the State. On November 17, 2008, E.O. S-14-08 established a Renewables Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. SB 100 accelerated and expanded the standards set forth in SB 350 by establishing that 44 percent of the total electricity sold to retail customers in California per year by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 also states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of the retail sales of electricity to California. This bill requires that the achievement of 100 percent zero-carbon electricity resources does not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Executive Order (E.O.) S-3-05. E.O. S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32 (AB 32). The California Global Warming Solutions Act of 2006, also known as Assembly Bill 32, focuses on reducing GHG emissions in California and requires the CARB) to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. The 2020 target reductions were estimated to be 174 million metric tons of CO₂e. In November 2017, CARB adopted California's 2017 Scoping Plan: The Strategy for Achieving California's 2030 GHG target (2017 Scoping Plan). The 2017 Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals.

Senate Bill 375 (SB 375). Provides a means for achieving Assembly Bill 32 goals through the reduction in emissions by cars and light trucks. SB 375 requires Regional Transportation Plans (RTPs) prepared by Metropolitan Planning Organizations (MPOs) to include Sustainable Communities Strategies (SCSs).

Senate Bill 743 (SB 743). SB 743, adopted September 27, 2013, encourages land use and transportation planning decisions and investments that reduce vehicle miles traveled, which contribute to GHG emissions, as required by AB 32. Key provisions of SB 743 include reforming aesthetics and parking CEQA analysis for certain urban infill projects and eliminating the measurement of auto delay, including Level of Service, as a metric that can be used for measuring traffic impacts in transit priority areas. SB 743 requires the Governor's Office of Planning and Research to develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects within transit priority areas that promote the "...reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." It also allows the Office of Planning and Research to develop alternative metrics outside of transit priority areas.

Executive Order (E.O) B-30-15. This policy set a goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. The E.O. establishes GHG emissions reduction targets to reduce emissions to 80 percent below 1990 levels by 2050 and sets an interim target of emissions reductions for 2030 as being necessary to guide regulatory policy and investments in California and put California on the most cost-effective path for long-term emissions reductions.

Senate Bill 32 (SB 32). This bill requires that statewide GHG emissions be reduced to 40 percent less than 1990 levels by 2030.

Executive Order (E.O) B-55-18. This policy established a statewide policy to achieve carbo neutrality as soon as possible and no later than 2045 and to achieve and maintain net negative emissions thereafter. The E.O. states that the new goal is in addition to the prior statewide targets for reduction of GHG emissions.

Regional

Southern California Association of Governments (SCAG) 2020–2045 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS). The SCAG Regional Council formally adopted the Connect SoCal 2020–2045 RTP/SCS (Connect SoCal) on September 3, 2020. Rooted in the 2008 and 2012 RTP/SCS plans, Connect SoCal’s “Core Vision” focuses on maintaining and enhancing management of the transportation network while also expanding mobility choices by creating hubs that connect housing, jobs, and transit accessibility. The “Core Vision” of Connect SoCal is organized into six key focus areas that expand upon progress made in the 2016 RTP/SCS: Sustainable Development, System Preservation and Resilience, Demand & System Management, Transit Backbone, Complete Streets, and Goods Movement. Connect SoCal incorporates a range of best practices for increasing transportation choices, reducing dependence on personal automobiles, further improving air quality and reducing GHG emissions, and encouraging growth in walkable, mixed-use communities with convenient access to transit infrastructure and employment.

Each of the six key focus areas in Connect SoCal contains strategies to achieve the intended holistic objectives of the Connect SoCal Growth Vision. The Sustainable Development focus area is the portion of the planning document dedicated to the SCS, which is the most directly applicable element to GHG emissions. The SCS evaluated the following Priority Growth Areas (PGAs) that were selected and developed based on their ability to support potential mode shift and shortened trip distances:

- Transit Priority Areas (TPAs) are defined as an area within one-half mile of a major transit stop that is existing or planned. This includes an existing rail or bus rapid transit station, a ferry terminal served by bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. (Based on California Public Resources Code Section 21099 (a)(7) and Section 21064.3)
- High Quality Transit Areas (HQTAs) are generally walkable transit villages or corridors, consistent with the adopted RTP/SCS that are within one half-mile of a well-served transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. Freeway transit corridors with no bus stops on the freeway alignment do not have a directly associated HQTA. A high-quality transit corridor (HQTC) is defined as a corridor with fixed route bus service containing intervals no longer than 15 minutes during peak commute hours (Based on California Public Resources Code Section 21155(b)).
- Livable Corridors refer to an arterial network that is a subset of the HQTAs based on level of transit service and land use planning efforts.

- Neighborhood Mobility Areas (NMAs) are areas with high intersection density (generally 50 intersections per square mile or more), low to moderate traffic speeds and robust residential retail connections which can support the use of Neighborhood Electric Vehicles or active transportation for short trips.
- Job Centers are areas with significantly higher employment density than surrounding areas.

Connect SoCal devised a growth priority hierarchy in order to optimize opportunities for shorter trip distances and drivers to switch to electric vehicles, which directs growth towards the areas described above in the following order: TPAs, Livable Corridors, Job Centers, HQTAs, and NMAs. Development in these areas will be guided by the following Connect SoCal strategies to reduce GHG emissions: focusing growth near destinations and mobility options; promoting diverse housing choice; leveraging technology innovations; supporting implementation of sustainability policies; and promoting a green region. SCAG, in conjunction with CARB, determined that implementation of Connect SoCal would achieve regional GHG reductions relative to 2005 SCAG areawide levels of approximately eight percent in 2020 and approximately 19 percent by 2035.⁵ The regional GHG emissions reductions achieved through the Connect SoCal Growth Vision are consistent with the regional targets set forth by CARB through SB 375.

Local

Local jurisdictions, such as the City of Long Beach, have the authority and responsibility to reduce GHG emissions through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of GHG emissions resulting from its land use decisions. The Air Quality Element of the City of Long Beach General Plan was adopted in 1996 and sets forth the goals, objectives, and policies that guide the City in the implementation of its air quality improvement programs and strategies. While the Air Quality Element does not specifically address climate change, reductions in other pollutants typically lead to a reduction in GHG emissions. This Element acknowledges the interrelationships among transportation and land use planning in meeting the City's goals. The General Plan includes a goal to reduce emissions through reduced energy consumption.

Per CEQA Guidelines Section 15183.5, the City adopted the Sustainable City Action Plan on February 2, 2010. The Sustainable City Action Plan includes initiatives, goals and actions that will move the City toward becoming more sustainable. The Sustainable City Action Plan includes chapters related to buildings and neighborhoods, energy, green economy and lifestyle, transportation, urban nature, waste reduction, and water. Implementation of this plan would contribute to a reduction in the City's overall GHG emissions.

Pursuant to California SB 379, all California cities and counties are required to include climate adaptation and resiliency strategies in their general plans to ensure safety and protection of their community in the future. The City is in the process of approving a Climate Change Action and Adaptation Plan that will provide a framework for creating or updating policies, programs, practices, and incentives for Long Beach residents and businesses to reduce the City's GHG footprint and ensure the community and physical assets are better protected from the impacts of climate change.

Section 21.45.400 of the Long Beach Municipal Code regulates public and private development to include various standards that promote green buildings. A green building, also known as a sustainable building, is a structure that is designed, built, renovated, operated, or reused in an ecological and resource-efficient manner. Green buildings are designed to meet certain objectives such as protecting occupant health;

⁵SCAG, *Connect SoCal 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy*, May 2020.

improving employee productivity; using energy, water, and other resources more efficiently; and reducing the overall impact on the environment.

On May 12, 2009, the Long Beach City Council approved Ordinance No. ORD- 09-0013 (Subsection 21.45.400—Green Building Standards for Public and Private Development). However, this Ordinance applies to the alteration of non-residential buildings results in the expansion of 50,000 gross square feet or more.

The City of Long Beach adopted the Long Beach Climate Action Plan (LB CAP) in 2022. The emissions inventories and targets in the LB CAP can be used in the development of a project-specific efficiency threshold. Efficiency thresholds are quantitative thresholds based on a measurement of GHG efficiency for a given project, regardless of the amount of mass emissions. These thresholds identify the emission level below which new development would not interfere with attainment of statewide GHG reduction targets. A project that attains such an efficiency target, with or without mitigation, would result in less than significant GHG emissions.

Significance Thresholds

This Assessment was undertaken to determine whether construction or operation of the proposed project would have the potential to result in significant environmental impacts related to GHG emissions in the context of the Appendix G Environmental Checklist criteria of the CEQA Statute and Guidelines. Implementation of the proposed project may result in a significant environmental impact related to GHG emissions if the proposed project would:

- a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or,
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions.

Section 15064.4 of the CEQA Guidelines states that a lead agency should make a good-faith effort to describe, calculate, or estimate the amount of GHG emissions resulting from a project, and that the lead agency should consider the following factors when assessing the significance of impacts from GHG emissions on the environment:

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

The CEQA Guidelines direct lead agencies to adopt thresholds of significance for GHG emissions. However, the CEQA Guidelines allow some flexibility in selecting the most appropriate thresholds of significance. When adopting these thresholds, the amended Guidelines allow lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence, and/or to develop their own significance threshold.

Neither the County nor the SCAQMD has officially adopted a quantitative threshold value for determining the significance of GHG emissions that will be generated by projects under CEQA. Although there are no GHG emissions thresholds presently promulgated, the SCAQMD convened a GHG CEQA Significance Threshold Stakeholder Working Group beginning in April of 2008 to examine alternatives for establishing quantitative GHG thresholds. Based on collaborative efforts of the Working Group, SCAQMD staff published the *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* in October 2008.⁶ The Working Group proposed a 3,000 MTCO_{2e} annual threshold for commercial projects, which was derived using a 90 percent capture rate for proposed CEQA projects within the SCAQMD jurisdiction. Projects with annual GHG emissions below 3,000 MTCO_{2e} are assumed to result in less than significant impacts.

Methodology

Construction emissions are estimated using the latest California Emissions Estimator Model (CalEEMod, Version 2022.1.1.3). Emission factors applicable to the Los Angeles County portion of the SCAB were used in conjunction with conservative estimates of equipment activity, worker trips, fugitive dust generation, and material hauling trips to estimate maximum daily emissions during each construction phase. Construction emissions were estimated using detailed equipment inventories and construction scheduling information provided by the engineering team combined with emissions factors from the EMFAC and OFFROAD models that are built into the CalEEMod program. In accordance with SCAQMD methodology, the total amount of GHG emissions that would be generated by construction of the proposed project was amortized over the operational life of the project to represent long-term impacts, which for this project is assumed to be 30 years.

The proposed project would not include a significant new source of permanent emissions. The proposed project consists of a renovation of commercial/restaurant uses within the Shoreline Village. No new parcels would be developed and no additional net square footage would be added to current parcels. The proposed project is not anticipated to generate new vehicle trips. Therefore, operational emissions are qualitatively assessed in the impact assessment.

Impact Assessment

a) Would the proposed project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? (Less-Than-Significant Impact)

Implementation of the proposed project would generate both direct and indirect GHG emissions. Temporary direct GHG emissions would be generated from the use of off-road equipment and truck/worker vehicle trips during construction activities. Mandatory compliance with SCAQMD regulations that restrict vehicle idling and ensure optimal equipment operating conditions would prevent the occurrence of excessive GHG emissions from these sources. The SCAQMD recommends that temporary GHG emissions associated with construction of CEQA projects be amortized over the operational life of the project to reflect the cumulative nature of climate change implications, which for this project is assumed to be 30 years. Construction of the proposed project would generate approximately 902.3 MTCO_{2e} over the 18 months of site improvements, which equates to an annual average of 601.5 MTCO_{2e}. Emissions would not exceed the SCAQMD draft interim significance threshold of 3,000 MTCO_{2e} in any year of construction or in total. Therefore, the proposed project would result in a less-than-significant impact related to GHG emissions.

⁶SCAQMD, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

The above analysis does not account for operational emissions because the proposed project would not include a new source of permanent emissions. Most importantly for GHG emissions, the proposed project would not generate new vehicle trips beyond existing traffic volumes. Indirect source emissions during operations commonly include energy consumption such as natural gas use associated with space heating, water heating, and stoves, as well as electricity for lighting and appliances. The replacement of aging buildings would improve the existing energy infrastructure leading to a decrease in on-site energy consumption. New on-site drought resistant landscaping would reduce exiting water use and associated indirect energy consumption used to transport water to the project site. Furthermore, the proposed site improvements would be designed in accordance with the CALGreen code and current Title 24 energy efficiency standards for nonresidential buildings. The proposed project would be designed to meet LEED requirements based on preliminary architectural designs. The proposed project would not generate more permanent emissions than those occurring under existing conditions.

Mitigation Measures

No mitigation measures are required.

b) Would the proposed project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs? (Less-Than-Significant-Impact)

The overall components of the proposed project would result in no net change in the commercial area of 82,368 square feet per the original entitlement. All buildings constructed for the proposed project would be designed to achieve LEED Certification. This type of small infill development would not interfere with State, regional, or local plans prepared to reduce GHG emissions.

AB 32 requires CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions and directs CARB to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill sets a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. On December 11, 2008, CARB adopted the Scoping Plan, which sets forth the framework for facilitating the state's goal of reducing GHG emissions to 1990 levels by 2020. The First Update of the Scoping Plan was adopted on May 22, 2014. CARB adopted the 2017 Scoping Plan in November 2017, which details strategies to cut back 40 percent of GHGs by 2030. AB 32, the updated first Scoping Plan, and the 2017 Scoping Plan did not establish regulations implementing, for specific projects, the Legislature's statewide goals for reducing GHGs. The Scoping Plan outlines a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions, including expanding energy efficiency programs, increasing electricity production from renewable resources (at least 33 percent of the statewide electricity mix), and increasing automobile efficiency, implementing the Low-Carbon Fuel Standard, and developing a cap-and-trade program. These measures are designed to be implemented by state agencies. The proposed project would not interfere with implementation of AB 32 and measures contained within the Scoping Plan to reduce GHG emissions.

The California legislature enacted SB 375 in 2008 to set regional targets for the reduction of GHG emissions and to require the preparation of Sustainable Communities Strategies by metropolitan planning organizations. SB 743 was enacted in 2013 to evolve the assessment of transportation impacts under CEQA, and SB 743 was incorporated into the CEQA Guidelines in 2018 by promulgating the use of vehicle miles traveled and vehicle miles traveled reductions as a significance threshold metric. The proposed project would not generate new vehicle trips beyond the existing condition. Projects that generate less than 500 daily trips are considered small projects by the City with the presumption of a less-than-significant impact related to vehicle miles

traveled. The proposed project would not have the potential to conflict with the regional GHG emissions targets and vehicle miles traveled reduction efforts of SB 375 and SB 743, respectively.

The proposed project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in E.O. S-03-05 and SB 32, or the carbon neutrality goal for 2045 identified in E.O. B-55-18. E.O. S-03-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40 percent below 1990 levels by December 31, 2030. E.O. B-55-18 establishes an additional statewide policy goal to achieve carbon neutrality as soon as possible and no later than 2045 and to achieve and maintain net negative emissions thereafter.

The City of Long Beach adopted its Climate Action Plan (LB CAP) in August 2022 to use as a guide towards meeting long term GHG emissions reduction and creating a more resilient community to the effects of climate change. The LB CAP outlines a range of actions the City will take to reduce GHG emissions and adapt to the effects of climate change, which are organized by themes, economic sectors, and types of climate stressors, including: Extreme Heat, Air Quality, Drought, Sea Level Rise + Flooding, Building + Energy, Transportation, and Waste management. To address project-level consistency with the LB CAP under CEQA, the City prepared a Climate Action + Adaptation Plan Consistency Review Checklist (CAAP Checklist) to streamline the environmental review process. The CAAP Checklist procedure requires that projects demonstrate consistency with the City's General Plan, determine if the project screens out of CAAP Action consistency, demonstrate consistency with the CAAP GHG Emission Reduction Actions, identify alternative project emission reduction measures (if applicable), and demonstrate consistency with the CAAP Adaptation Actions. The CAAP Checklist is organized into three tables to address these criteria.

Step 1 of the CAAP Checklist consistency evaluation is related to whether the proposed project is consistent with the City's General Plan Land Use Element and the underlying assumptions related to population growth. The proposed project consists of a renovation of commercial/restaurant uses within the Shoreline Village. No new parcels would be developed, and no additional net square footage would be added to current parcels. The proposed project is not anticipated to generate new vehicle trips. As implementation of the proposed project would be consistent with the existing land use designations on the project site and would not introduce new population growth nor induce new vehicle trips, the proposed project would be consistent with the Land Use Element of the City's General Plan. Based on this conclusion, the analysis proceeds to the CAAP Action Consistency portion of the CAAP Checklist.

Step 2 of the CAAP Checklist provides CAAP Action Screening Criteria that are used to screen out of further CAAP Checklist consistency review. The screening criterion involves whether a project would result in per capita GHG emissions of 1.4 MTCO₂e per service population or less. The proposed project would not introduce new substantial permanent sources of GHG emissions to the City, and would not include trip-generating development. There would be no service population for the proposed project, as its implementation involves improvements and renovations to existing uses on the project site. The proposed project is also located in a Transit Priority Area (TPA). Based on these conditions, a quantitative analysis of the long-term operational GHG emissions is not warranted. Minimal indirect GHG emissions would be associated with the lighting fixtures in the parking structure, parking lots, and renovated spaces. The proposed project would incorporate energy-efficiency, sustainability, and water-efficiency standards required by the Long Beach Municipal Code. Therefore, the proposed project would result in a less-than-significant impact related to conflict with GHG reduction plans.

A Sea Level Rise Analysis was completed for the proposed project assesses potential impacts across multiple sea level rise scenarios.⁷ Vulnerability to sea level rise hazards was evaluated through an analysis of hazard exposure, sensitivity, and adaptive capacity. Exposure refers to the type, duration, and frequency of coastal hazards a specific resource is subject to under a given sea level rise scenario. Sensitivity represents the degree to which a resource is impaired by exposure to coastal hazards. Adaptive capacity refers to the ability of a resource to cope with changes in coastal hazards over time.

The State of California Ocean Protection Council has high confidence in estimates to approximately 2050, after which increased uncertainty in modeling efforts cause predictions to diverge. Due to the high degree of uncertainty associated with predicting when and at what rate sea level rise will occur, the analysis looked at a range of sea level rise values starting with present day conditions and including low-probability sea level rise scenarios at the end of the century. Buildings within the project site were constructed in the 1980s. Assuming a 75- to 100-year useful life for those structures and a 50-year design life for the updates, small additions, and parking structure proposed as part of proposed project, 2080 was used as the time horizon for sea level rise hazard analyses. Three scenarios have been selected for analysis that consider projected sea level rise from 3.3 to 6.6 feet to capture potential hazards during, at the end of, and after the proposed project useful life. Coastal hazards under each increment of sea level rise are evaluated under non-storm, 1-year, and 100-year coastal storm conditions.

The effects of sea level rise on storm and non-storm related flooding were evaluated using results of the United States Geological Survey Coastal Storm Modeling System (CoSMoS) Version 3.0, Phase 2. This is a multi-agency modeling effort led by the United States Geological Survey designed to make detailed predictions of coastal flooding and erosion based on existing and future climate scenarios for Southern California. CoSMoS coastal flooding projections simulate the effects of erosion, wave runup, and overtopping during storm events.

The Sea Level Rise Analysis concludes that the flood hazard exposure is relatively low within the project site. The 3.3-foot sea level rise scenario is not projected until a time horizon approaching the end of the useful life of the proposed project. Flood projections are absent from the project site, although flood hazard exposure increases slightly in areas surrounding the project site. CoSMoS flood projections cover a limited area of the southern portion of Shoreline Village Drive under 1-year storm conditions and more extensive under a 100-year coastal storm event.

The 4.9-foot sea level rise scenario, projected to occur at the end of or slightly after the useful life of the proposed project, represents the first case in which flood hazard exposure is present within the project site itself. Under this scenario, CoSMoS modeling results indicate that the southern portion of Shoreline Village Drive, located outside of the project site, will be susceptible to flooding under non-storm, spring tide conditions. Flood projections for a 100-year storm event extend further north along Shoreline Village Drive and cover limited portions of parking areas within Shoreline Village.

Flood hazard exposure is projected to increase substantially within the project site for a 6.6-foot sea level rise scenario, though this scenario is not projected to occur until after the useful life of the proposed project. While flood hazard exposure increases, projected flooding of commercial structures remains limited to 100-year storm conditions. Non-storm spring tide flood projections extend across significant portions of parking areas and roadways surrounding Shoreline Village. The extent of flood projections increases slightly for a 1-year storm event but remains limited to parking areas and surrounding roadways. Under 100-year storm

⁷Moffatt & Nichol, *Shoreline Village Redevelopment Sea Level Rise Analysis*, May 10, 2022.

conditions in combination with 6.6-foot sea level rise, CoSMoS modeling results show flooding across the entirety of Shoreline Village.

The adaptive capacity of Shoreline Village is bolstered by the relative absence of flood projections up to 4.9-foot sea level rise, not projected to occur until the end of the useful life of the proposed project, and non-storm flood projections remaining absent in project site commercial development areas across all sea level rise scenarios. Within the project site, raising the elevation of paved areas and floodproofing commercial structures are options to address projected increases in coastal hazards over time as needed, though floodproofing is not projected to be needed until after the Project's useful life. Given current sea level rise projections, it is highly unlikely that any adaptation actions would become necessary until after 2070, allowing for significant time to monitor hazard conditions and plan for implementation accordingly.

A summary of potential adaptation measures within the project site for each sea level rise scenario and associated time horizon is presented below. Adaptation options were chosen to align with long-term sea level rise and flooding adaptation actions outlined in the Long Beach Climate Action and Adaptation Plan.

- Expand beach nourishment
- Construct living shoreline/berm
- Elevate street hardscapes
- Elevate streets/pathways
- Retreat/realign parking lots
- Extend/upgrade existing seawalls

In summary, the proposed project would not interfere with GHG reduction plans. In addition, the project site is not usually prone to sea level rise. It is highly unlikely that any adaptation actions would become necessary until after 2070, allowing for significant time to monitor hazard conditions and plan for implementation accordingly.

Mitigation Measures

No mitigation measures are required.

References

- California Air Pollution Control Officers Association, *California Emissions Estimator Model User Guide (Version 2022.1)*, April 2022.
- California Air Resources Board, *2022 Scoping Plan for Achieving Carbon Neutrality*, November 2022.
- California Air Resources Board, *California Greenhouse Gas Emission Inventory - 2022 Edition*, November 2022.
- California Air Resources Board, *California Greenhouse Gas Inventory for 2000–2020 – Trends of Emissions and Other Indicators*, November 2022.
- California Air Resources Board, *Determination of Total Methane Emissions from the Aliso Canyon Natural Gas Leak Incident*, October 2016.
- California Air Resources Board, *Global Warming Potentials*,
<https://www.arb.ca.gov/cc/inventory/background/gwp.htm>, accessed on November 10, 2022.
- California Environmental Protection Agency Climate Action Team, *Climate Action Report to Governor Schwarzenegger and the California Legislator*, March 2006.
- California Environmental Quality Act Guidelines Section 15064.4.
- City of Long Beach, *Draft Subsequent Environmental Impact Report for the Climate Action and Adaptation Plan and Public Safety Element Update*, March 2022.
- City of Long Beach, *Draft Subsequent Environmental Impact Report for the Climate Action and Adaptation Plan and Public Safety Element Update – Appendix D Climate Action and Adaptation Plan Consistency Review Checklist and Technical Support Documentation*, March 2022.
- City of Long Beach, *Long Beach Climate Action Plan (LB CAP)*, Adopted August 2022.
- Moffatt & Nichol, *Shoreline Village Redevelopment Sea Level Rise Analysis*, May 10, 2022.
- South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.
- South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.
- South Coast Air Quality Management District, *SCAQMD Air Quality Significance Thresholds*, April 2019.
- Southern California Association of Governments, *Connect SoCal: The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments*, Adopted September 2020.

**TABLE 1
CAAP GREENHOUSE GAS EMISSION REDUCTION ACTION CONSISTENCY CHECKLIST**

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
STEP 1: General Plan and 2019 Land Use Element Consistency		
<p>1. The Project is Consistent with the City’s General Plan Land Use Element</p> <p>The growth projections outlined in the 2019 General Plan Land Use Element were used in the City’s CAAP to estimate citywide GHG emissions over time. Therefore, new development projects must be consistent with the Land Use Element to be consistent with the CAAP. In order for City staff to determine a project’s consistency with the Land Use Element, please answer the following question and provide explanation with supporting documentation.</p> <p>Is the proposed project consistent with the existing land use designation of the 2019 Land Use Element?</p> <p>If “Yes,” proceed to the “CAAP Action Consistency” section below.</p> <p>If “No,” proceed to Item 2.</p>	<p><i>Describe how the project is consistent with the City’s 2019 General Plan Land Use Element. Provide additional supporting documentation as an attachment as needed.</i></p> <p>The proposed project is consistent with the existing land use designations for the project parcels. Implementation of the proposed project would not require additional parcels or alter the nature of land uses on the site. The proposed site improvements would enhance accessibility and parking capacity. Therefore, the proposed project is consistent with the 2019 General Plan Land Use Element.</p>	<p><input checked="" type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
<p>2. The Project Achieves emissions of 1.4 MTCO₂e per service population or less</p> <p>Does the project achieve emissions of 1.4 MTCO₂e per service population or less? The project must conduct a comprehensive quantitative project-specific analysis of all GHG emissions, consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development, to demonstrate that the project achieves this efficiency level.</p> <p>If “Yes,” the project is consistent with the CAAP and no additional analysis is needed (no project-specific GHG impact analysis would be required).</p> <p>If “No,” proceed to Item 3.</p>	<p><i>If “Yes”, attach to this checklist the estimated project emissions and emissions per service population. If the proposed project is determined to result in GHG emissions less than 1.4 MTCO₂e per service population, the project is consistent with the CAAP and the analysis is complete (no project-specific GHG impact analysis would be required). Provide supporting calculation files and documentation for this analysis.</i></p> <p>OR,</p> <p><i>Explain why the project would not achieve GHG emissions less than 1.4 MTCO₂e per service population. Provide supporting calculation files and documentation for this analysis.</i></p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>
<p>3. Project Results in Fewer GHG Emissions per Service Population Compared to Existing Land Use Designations</p> <p>The project must achieve one of the following options.</p> <p>1. Does the project result in fewer GHG emissions per service population than the future no-project development based on existing land use designations at the project site? The</p>	<p><i>If “Yes” to number 1, attach to this checklist the estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation. If the proposed project is determined to result in fewer GHG emissions per service population than the existing designations would produce, proceed to the “CAAP Action Consistency” section of this</i></p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
<p>applicant must conduct a comprehensive project-specific analysis of all GHG emissions for both the project and the future no-project development, consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development, to demonstrate that the project achieves this emissions level.</p> <p>If “Yes,” proceed to the “CAAP Action Consistency” section below.</p> <p>If “No,” proceed to number 2.</p> <p>2. If there isn’t a project-specific GHG emissions analysis available, then the project would likely result in fewer GHG emissions per service population than would existing land use designations at the project site by incorporating key land use design elements. Would the project implement at least <u>one</u> of the following elements?</p> <p>a. The project would result in a higher density of housing and / or jobs located within 0.5 miles of a transit station than was than was contemplated in the General Plan.</p> <p>b. The project includes a mix of uses (i.e., residential, retail, commercial) and is located in a Transit Priority Area or a High Quality Transit Area.</p> <p>c. The project includes more affordable housing units than was contemplated in the General Plan and is located within 0.5 miles of a transit station.</p> <p>d. The project includes local-serving retail less than 50,000 square feet.</p> <p>If “Yes,” proceed to the “CAAP Action Consistency” section below.</p> <p><i>If “No,” the proposed project may not tier from this document and must prepare a comprehensive project-specific analysis of GHG emissions and impacts and incorporate the measures in the CAAP Checklist to the extent feasible.</i></p>	<p><i>checklist. Provide supporting calculation files and documentation for this analysis.</i></p> <p><i>OR,</i></p> <p><i>If “Yes” to number 2, describe how the project achieves one of the required elements. Provide supporting documentation.</i></p> <p><i>OR,</i></p> <p><i>If “No” to both number 1 and number 2, explain why the project would not achieve the same or lower GHG emissions per service population than the existing designations, and why the project does not achieve one of the required elements. Prepare a comprehensive project-specific analysis of GHG emissions and impacts, pursuant to all CEQA guidelines and the City’s CEQA approach and incorporate the measures in this Checklist to the extent feasible.</i></p>	
STEP 2: CAAP Action Screening Criteria		
<p>Certain projects may screen out of the CAAP Checklist if they meet the following screening criteria:</p> <p>1. Would the project achieve emissions of 1.4 MTCO₂e per service population or less?</p>	<p><i>If “Yes” to #1, attach to this checklist the estimated project emissions and emissions per service population. If the proposed project is determined to result in GHG emissions less than 1.4 MTCO₂e per service population, the project is consistent with the CAAP and the analysis is complete (no project-</i></p>	<p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p>

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
<p>If “Yes”, the project is consistent with the CAAP and no additional analysis is needed (no project-specific GHG impact analysis would be required).</p> <p>If “No,” proceed to <i>Building Energy</i> below.</p>	<p><i>specific GHG impact analysis would be required). Provide supporting calculation files and documentation for this analysis.</i></p> <p>There is no service population associated with the proposed project, and implementation of the proposed project would not introduce a new direct source of GHG emissions to the project site. The proposed project either complies with this criterion, or it is not applicable.</p>	<p><input type="checkbox"/> Project Does Not Comply</p>
<p>STEP 3: CAAP Action Consistency</p>		
<p>Building Energy</p>		
<p>1. TIER 1: Zero-Carbon Electricity</p> <p>For all projects except heavy industry (but including light industrial projects), the project must utilize 100% zero-carbon electricity on-site. The project must comply with one of the following options:</p> <ol style="list-style-type: none"> 1. Install on-site renewable energy systems or participate in a community solar program to supply 100% of the project’s estimated energy demand to the maximum extent feasible. 2. Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until which time SCE provides 100% carbon-free electricity for all accounts by default. 3. A combination of #1 and #2 above such that 100% of the project’s electricity is zero-carbon. <p>Supports CAAP Measures: BE-1, BE-2, BE-3</p>	<p><i>Describe why this action is not applicable to your project.</i></p> <p>At this time, Option 2 for the SCE Green Rate Program is not available for use.</p> <p>The proposed project would replace existing kiosk building structures with new buildings that meet LEED Certified energy efficiency standards. The proposed project would result in no net change to the 82,368 square feet of commercial space currently existing on the site. The primary new construction components of the proposed project are the 1,270 square feet of retail space and the parking garage, which itself would include 650 square feet of retail space on the parking deck. All electrical elements of the proposed project would meet the requirements of the California Green Building Code and the Long Beach Municipal Code. This criterion is not applicable to the project.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>
<p>2. TIER 1: MUNICIPAL PROJECTS ONLY: Reduce Energy Use and Supply the Project with Renewable Electricity</p> <p>The Project must incorporate the following design elements to the maximum extent feasible:</p> <ol style="list-style-type: none"> 1. Incorporate strategic energy management programs to reduce building energy demands. 2. Energy efficiency design features to reduce electricity and natural gas energy use beyond Title 24 Building Energy requirements. 3. Install on-site renewable energy systems, such as rooftop solar PV. 	<p><i>Describe why this action is not applicable to your project.</i></p> <p>The proposed project is not a municipal project.</p>	<p><input type="checkbox"/> Project Complies</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
<p>4. Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until which time SCE provides 100% carbon-free electricity for all accounts by default.</p> <p>Supports CAAP Measures: BE-6</p>		
<p>3. TIER 1: Comply with all City building energy codes and ordinances</p> <p>The Project must comply with all applicable City building energy codes and ordinances at the time of project approval. This includes, but is not limited to, any requirements for electrification, energy use intensity factors, zero-net-energy construction, CalGreen Tier 2 or other energy measures, or LEED requirements.</p> <p>Supports CAAP Measures: BE-7</p>	<p><i>Describe which project consistency options from the leftmost column you are implementing.</i></p> <p>The new retail building space would meet LEED Certified energy efficiency standards. Additionally, all pedestrian pathways and the parking garage would feature high efficiency lighting fixtures to minimize energy demand.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>
<p>4. TIER 2: Building Energy Efficiency</p> <p>This action applies only to projects that include a retrofit of an existing building. If the proposed project does not include a retrofit, select "Not Applicable" in the Project Conformance column.</p> <p>Projects are encouraged to incorporate energy efficiency measures into the design, which can reduce carbon emissions while also reducing future operational costs through the following:</p> <ol style="list-style-type: none"> 1. Incorporate strategic energy management programs to reduce building energy demands. 2. Conduct an energy audit or benchmarking analysis to identify potential energy savings opportunities and implement such opportunities. 3. Achieve CalGreen Tier 2 or voluntary building energy measures as they apply to the retrofit. 4. Reduce or eliminate the use of natural gas in place of electricity use (i.e., replace existing natural gas appliances with electric alternatives) 5. Replace existing appliances with higher-efficiency models 6. Install high-efficiency appliances/fixtures to reduce water use, and/or include water-efficient landscape design 	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>Projects are encouraged to implement these measures. The proposed project would achieve Calgreen Tier 2 measures for building renovations.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
7. Participate in SoCalREN, SCE, or other energy efficiency programs 8. Conduct other energy efficiency retrofits 9. Achieve zero-net-energy Supports CAAP Measures: BE-4, BE-5		
Waste		
<p>5. <u>TIER 1</u>: Recyclable Materials Recycling</p> <p>The project must comply with all state and local requirements for recycling, also including but not limited to, Chapter 8.60 Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction in the City's Municipal code. The project must also:</p> <ol style="list-style-type: none"> 1. Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Section 18.67.100. 2. Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants. 3. Ensure that all projects include space for multi-stream collection containers in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. The project must provide educational material and training to occupants and tenants in how to properly separate recyclables from all other solid waste and place recyclables in a separate container designated for recycling. 4. Ensure that all project occupants and tenants separate recyclables from all other refuse and place recyclables in a separate container designated for recycling. 	<p><i>Describe which project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project would comply with all elements of this criterion.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
<p>5. Ensure containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the City as requested.</p> <p>6. Work with waste hauler to provide educational material to tenants at least on an annual basis.</p> <p>7. Provide compliance data to the City as required for any current auditing program.</p> <p>Supports CAAP Measures: W-1</p>		
<p>6. TIER 1: Organics Composting</p> <p>The project must comply with all state and local requirements for composting and organic waste collection, including but not limited to, Chapter 8.60 Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction in the City's Municipal code. The project must also:</p> <ol style="list-style-type: none"> 1. Provide proper storage, collection, and loading of organics in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes of collection containers for organics. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants. 2. Ensure that all projects include space for multi-stream collection containers for both recycling and organics in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. The project must provide educational material and training to occupants and tenants in how to properly separate organics from all other solid waste and place organics in a separate container designated for organics. 3. Ensure that all project occupants and tenants will separate compostables from all other refuse and place compostables in a separate container designated for composting. 4. Ensure containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the City as requested. 	<p>The proposed project would comply with all elements of this criterion.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
<p>5. Work with waste hauler to provide educational material to tenants at least on an annual basis.</p> <p>6. Provide compliance data to the City as required for any current auditing program.</p> <p>Supports CAAP Measures: W-2, W-3</p>		
<p>7. TIER 2: Incorporate On-site Composting, Mulching, and/or Anaerobic Digestion</p> <p>The project may incorporate organic waste processing capabilities, such as composting, mulching, or anaerobic digestion facilities (where applicable). Collaborate with agencies to share organic processing information with interested parties.</p> <p>Supports CAAP Measures: W-4</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)</i></p>	<p><input type="checkbox"/> Project Complies</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>
Transportation		
<p>8. TIER 2: Meets Transportation Screening Criteria</p> <p>Does the project meet <u>one</u> of the following transportation screening criteria?</p> <ol style="list-style-type: none"> 1. Is the project located in a Transit Priority Area or High Quality Transit Area? 2. Does the project include local-serving retail (e.g., grocery stores, pharmacies, or restaurants) less than 50,000 square feet? 3. Does the project include 100 percent affordable housing units(excluding the Manager's unit)? 4. Will the project result in less than 110 total daily vehicle trips at full buildout? <p>If "Yes," skip checklist items #9 though #14 and proceed to checklist item #15 (<i>Comply with the City's Transportation Impact Guidelines</i>) below.</p> <p>If "No," proceed to checklist item #6 below.</p> <p>Supports CAAP Measures: T-1, T-2, T-3, T-5, T-6, T-7, T-8, T-9</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project would not generate any new net vehicle trips.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
<p>9. <u>TIER 1: Trip Reduction Features to Reduce Vehicle Miles Traveled</u></p> <p>The project must incorporate vehicle trip reduction features into the project design or as mitigation measures. These features must achieve a minimum five percent reduction in vehicle trips and VMT as compared to the project without such vehicle trip reduction features, as estimated through practices backed by substantial evidence with cited reduction potential in the TIA guidelines Appendix A. This can be achieved through the implementation of a project-specific TDM Plan (see checklist item #13), offering transit subsidies, incorporating pedestrian and bicycle infrastructure (see checklist items #10 and #11), implementing parking restrictions or pricing, or including other features and measures to reduce vehicle trips.</p> <p>Supports CAAP Measures: T-1</p>	<p><i>Describe which project consistency options from the leftmost column you are implementing.</i></p> <p>OR,</p> <p><i>Describe why this action is not applicable to your project.</i></p> <p>OR,</p> <p><i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)</i></p>	<p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>
<p>10. <u>TIER 1: Incorporate Pedestrian Infrastructure</u></p> <p>The project must incorporate pedestrian infrastructure into its design:</p> <ol style="list-style-type: none"> 1. Pedestrian facilities and connections to public transportation consistent with the City's Mobility Element, CX3 Pedestrian Plan, and any other relevant governing plan 2. Increase sidewalk coverage to improve pedestrian access 3. Improve degraded or substandard sidewalks 4. Maximize shade for pedestrians through tree planting and maintenance 5. Incorporate best practices to ensure pedestrian infrastructure is contiguous and links externally with existing and planned pedestrian facilities; best practices include high-visibility crosswalks, pedestrian hybrid beacons, and other pedestrian signals, mid-block crossing walks, pedestrian refuge islands, speed tables, bulb-outs (curb extensions), curb ramps, signage, pavement markings, pedestrian-only connections and districts, landscaping, and other improvements to pedestrian safety 6. Minimize barriers to pedestrian access and interconnectivity, such as walls, landscaping buffers, slopes, and unprotected crossings 	<p><i>Describe which project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project's site improvements would enhance accessibility and safety of pedestrian thoroughfares throughout the project site. The proposed project was designed in accordance with these criteria related to pedestrian circulation.</p>	<p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
Supports CAAP Measures: T-2		
<p>11. TIER 1: Incorporate Bicycle Infrastructure</p> <p>The project must incorporate bicycle infrastructure into its design:</p> <ol style="list-style-type: none"> 1. Bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increased of use intensity, and added off-street vehicle parking spaces 2. Provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity and nothing less than CalGREEN requirements, whichever is more restrictive 3. Bicycle facilities consistent with the City's Bicycle Master Plan, Urban Design Element, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen <p>Supports CAAP Measures: T-3</p>	<p><i>Describe which project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project would provide 28 bicycle parking spots in the new 227-space parking garage. The total number of parking spaces on the Shoreline Village property would be 395 with implementation of the proposed project. The 28 bicycle parking spaces represent seven percent of the total parking spaces. Additionally, the proposed project would enhance local bicycle accessibility and circulation by connecting the Rainbow Harbor Bicycle Path and the Marina Green bike path through a bike path extension on the northern end of the project site.</p>	<p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>
<p>12. TIER 1: Incorporate Electric Vehicle Charging Infrastructure</p> <p>The project must comply with any CalGREEN requirement, City ordinance, building code, or condition of approval that requires a certain amount of EV charging infrastructure and readiness. This may include minimum requirements for EV charging stations, EV-capable parking spaces, and EV-ready parking spaces.</p> <p>Supports CAAP Measures: T-5</p>	<p><i>Describe which project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project would construct a 2-story parking deck which would add 24 electric vehicle charging parking stalls (>10% of 227 total spaces).</p>	<p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>
<p>13. TIER 1: Comply with City TDM Ordinance</p> <p>The Project must comply with the City's TDM ordinance at the time of project approval. This may include preferential carpool/vanpool parking, bicycle parking, and shower facilities and locker rooms; trip reduction plans; transit-supportive infrastructure development; and similar strategies. Comply with any applicable VMT reduction target and incorporate any required monitoring mechanisms for development, subject to the ordinance.</p> <p>Supports CAAP Measures: T-7</p>	<p><i>Describe which project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project would be designed in accordance with the City's TDM ordinance.</p>	<p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>
<p>14. TIER 1: Comply with the City's Transportation Impact Guidelines</p>	<p><i>Describe which project consistency options from the leftmost column you are implementing.</i></p>	<p><input type="checkbox"/> Project Complies</p>

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
<p>The project must comply with the City's current Transportation Impact (TIA) Guidelines. Projects may screen out if they meet certain criteria, such as being located in a transit priority area or local-serving retail development less than 50,000 square feet. For projects which don't screen out must meet the VMT efficiency metrics identified by the TIA Guidelines (e.g., 11.8 daily VMT per capita for residential projects and 18.0 daily VMT per capita for office projects).</p> <p>Supports CAAP Measures: T-9</p>	<p>The proposed project would add less than 5,000 square feet of new commercial space to the project site, and there would be no net change to the overall commercial space on the site.</p>	<p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>
<p>15. TIER 2: High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design</p> <p>Projects should maximize the following characteristics whenever feasible:</p> <ol style="list-style-type: none"> 1. Located in a transit priority area or transit corridor 2. Includes local-serving retail (e.g., grocery stores, pharmacies, or restaurants) 3. Includes 100 percent affordable housing units or an otherwise high level of affordable housing as defined by the City for the project site 4. Includes a mix of land uses 5. Includes shared and reduced parking strategies, such as shared parking facilities, carpool/vanpool-only spaces, shuttle facilities, EV-only spaces, and reduced parking below allowable amount 6. Does not provide more parking than required <p>Supports CAAP Measures: T-6, T-8</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project is located in a transit priority area (TPA) as defined by the Southern California Association of Governments. The proposed project would not provide more parking than required and would include EV charging spaces.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p> <p><input type="checkbox"/> Alternative Measure Proposed</p>

SOURCE: Attachment A, Climate Action + Adaptation Plan Consistency Review Checklist: Technical Support Documentation.

**TABLE 3
STEP 5: CAAP ADAPTATION ACTION CONSISTENCY CHECKLIST**

CAAP Adaptation Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
Extreme Heat		
<p>1. Incorporate Cool Roofs, Cool Walls, Reflective Streets, Cool Surfaces, and Shade Canopies</p> <p>The project incorporates the following features into its design, but not less than the California Energy Code:</p> <ol style="list-style-type: none"> 1. Cool roofs and/or walls in place of dark roofs and/or conventional walls 2. Cool pavements and reflective street materials 3. Shade canopy installations 4. Other heat island mitigation design features <p>Supports CAAP Measures: EH-1, EH-2</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project will be designed in accordance with the CalGREEN Code and the Long Beach Municipal Code, and will feature shade canopies and cool pavements.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>
<p>2. Incorporate Tree Plantings and Expands Urban Forest Cover</p> <p>The project enhances and expands urban forest cover and vegetation by planting trees and other vegetation. All trees and vegetation planted must be drought-tolerant or California native trees & plants.</p> <p>Supports CAAP Measures: EH-3</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>Landscaped areas for the proposed project will feature drought-tolerant and native vegetation.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>
<p>3. Incorporate Bus Shelter Amenities</p> <p>For any project that includes the installation of a new bus shelter, the project must include bus shelter amenities such as shade structures.</p> <p>Supports CAAP Measures: EH-7</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project does not involve installation of a new bus shelter.</p>	<p><input type="checkbox"/> Project Complies</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>

Air Quality		
<p>4. Install Photocatalytic Tiles</p> <p>The project includes the installation of photocatalytic tiles on outdoor surfaces, particularly in areas of the City with the poorest air quality.</p> <p>Supports CAAP Measures: AQ-1</p>	<p><i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)</i></p> <p>The proposed project's preliminary design does not feature photocatalytic tiles because the design of the new green roof cannot feasibly accommodate them.</p>	<p><input type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input checked="" type="checkbox"/> Project Does Not Comply</p>
<p>5. Include Urban Agriculture</p> <p>The project includes urban agriculture in the form of community or private gardens.</p> <p>Supports CAAP Measures: AQ-2</p>	<p><i>Describe why this action is not applicable to your project.</i></p> <p>The proposed project does not involve substantial new development and the preliminary design for the proposed project does not accommodate a community or private garden.</p>	<p><input type="checkbox"/> Project Complies</p> <p><input checked="" type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>
<p>6. Use Electric Lawn and Garden Equipment, Outdoor Power Equipment, and Other Small Equipment</p> <p>The project prohibits the use of gasoline-powered small equipment, including lawn and garden equipment and outdoor power equipment, for all tenants and owners. The project provides educational materials to tenants regarding the SCAQMD Electric Lawn and Garden Equipment Incentive and Exchange Program, Commercial Lawn & Garden Battery Buy-Down Rebate Program, and Residential Lawn Mower Rebate Program as well as the new requirements of AB1346.</p> <p>This requirement must be stipulated in the contract specifications for the project's future tenants and any landscaping contracts for the property or tenants.</p> <p>Supports CAAP Measures: AQ-4</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p><i>A condition of approval from the City is required for compliance.</i></p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>
Drought		
<p>7. Implement Water Use Efficiency and Water Conservation</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p>	<p><input checked="" type="checkbox"/> Project Complies</p>

<p>The project incorporates water use efficiency and conservation measures, including:</p> <ol style="list-style-type: none"> 1. CalGreen Tier 1 and Tier 2 voluntary water conservation measures 2. Low-flow or high-efficiency water fixtures 3. Water-efficient landscapes with lower water demands than required by the DWR 2015 Model Water Efficient Landscape Ordinance (MWEL0) 4. Drought-tolerant and native plant species only 5. Other applicable strategies to reduce water use <p>Supports CAAP Measures: DRT-1</p>	<p>The proposed project would use drought-tolerant and native plans for landscaped areas, would feature low-flow faucets and toilets, and water-efficient landscapes.</p>	<p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>
<p>8. Incorporate Green Infrastructure and Green Streets</p> <p>The project shall incorporate green infrastructure such as permeable pavement, bioretention areas, bioswales, or vegetated strips.</p> <p>Supports CAAP Measures: DRT-3</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project would feature vegetated strips along pedestrian and bicycle pathways.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>
<p>9. Use Recycled Water and Greywater for Non-Potable Uses; includes Rainfall Capture</p> <p>The project uses recycled water and/or greywater for non-potable uses and incorporates water reuse strategies onsite, such as rainfall capture systems. The project would:</p> <ol style="list-style-type: none"> 1. Require use of reclaimed / recycled water and/or grey water for outdoor uses 2. Install residential greywater systems that meet appropriate regulatory standards 3. Install rainfall capture systems 4. Install dual plumbing for the use of recycled water <p>Supports CAAP Measures: DRT-4, DRT-5</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project would comply with NPDES regulations pertaining to the retention of stormwater and detention of site runoff into storm drains. Additionally, the proposed project would be required to implement BMPs in compliance with the City's LID requirements to reduce potential impacts to local stormwater drainage facilities.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>

Sea Level Rise and Flooding		
<p>10. Comply with all City Floodplain and Sea Level Rise Regulations</p> <p>The project complies with all City and FEMA floodplain regulations as necessary to limit, elevate, or provide floodproofing standards in areas designated as vulnerable to flooding in order to minimize physical damage to development. This includes compliance with all applicable FEMA, California Building Code, City Building Code Chapter 18.40 and Floodplain Ordinance requirements.</p> <p>The project also complies with all applicable sea level rise regulations and ordinances, such as the Local Coastal Program.</p> <p>The project applicant must notify all residents, tenants, and occupants if the project is located on a FEMA floodplain map and a sea level rise inundation map and shall provide these maps to residents, tenants, and occupants.</p> <p>Supports CAAP Measures: FLD-1, FLD-2</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The environmental documentation for the proposed project includes a Sea Level Rise analysis, and the proposed project would comply with all applicable regulations and ordinances.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>
<p>11. Comply with the City’s Current Stormwater Management Plan</p> <p>The project must comply with the City’s Current Stormwater Management Plan and all related ordinances related to stormwater management and sea level rise scenarios evaluated by the City.</p> <p>Supports CAAP Measures: FLD-5</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project would comply with the City’s Stormwater Management Plan.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>
<p>12. Ensure that all critical infrastructure in the sea level rise vulnerability zone is elevated, relocated, or floodproofed.</p> <p>For any project related infrastructure or infrastructure improvements, the project must sufficiently elevate, relocate, or install sufficient floodproofing techniques for all critical infrastructure in the City’s sea level rise vulnerability zone pursuant to all City requirements. The project uses floodproofing techniques as necessary.</p> <p>Supports CAAP Measures: FLD-10</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project is designed to be adaptive to the effects of climate change such as sea level rise, and a sea level rise analysis determined that future impacts under conservative projection scenarios would be less than significant.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p> <p><input type="checkbox"/> Project Does Not Comply</p>
<p>13. Adapt Street Hardscapes and Waterfront Streets and Paths</p>	<p><i>Describe which, if any, project consistency options from the leftmost column you are implementing.</i></p> <p>The proposed project would sufficiently elevate waterfront hardscapes.</p>	<p><input checked="" type="checkbox"/> Project Complies</p> <p><input type="checkbox"/> Not Applicable</p>

<p>For any project related street improvements within the SLR vulnerability zone, the project must consider elevating and extending street hardscapes such as curbs to eliminate gaps that could become flood pathways, including those identified in the CAAP.</p>	<p><i>OR,</i> <i>Describe why this action is not applicable to your project.</i></p> <p><i>OR,</i> <i>Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)</i></p>	<p><input type="checkbox"/> Project Does Not Comply</p>
<p>Supports CAAP Measures: FLD-14, FLD-15</p>		

SOURCE: Attachment A, *Climate Action + Adaptation Plan Consistency Review Checklist: Technical Support Documentation.*