

**VOLUME I**

**DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT**

**STATE CLEARINGHOUSE NO. 2015051054**

**CLIMATE ACTION AND ADAPTATION PLAN AND  
SAFETY ELEMENT UPDATE PROJECT**

**CITY OF LONG BEACH**

Submitted to:

City of Long Beach  
Development Services, Planning Bureau  
411 West Ocean Boulevard, Third Floor  
Long Beach, California 90802

Prepared by:

**LSA**

March 2022

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**VOLUME II**

**APPENDICES TO THE  
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*Appendices are provided on Electronic Media and attached to the  
Draft Subsequent Environmental Impact Report*

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## LIST OF ACRONYMS AND ABBREVIATIONS

°C	degree Celsius
°F	degree Fahrenheit
2008 RCP	2008 Regional Comprehensive Plan
AAQS	ambient air quality standards
AB	Assembly Bill
AELUP	Airport Environs Land Use Plan
ALUC	Airport Land Use Commission
ALUP	Airport Land Use Plan
AQMP	Air Quality Management Plan
ATCM	Airborne Toxic Control Measure
Basin	South Coast Air Basin
BE	Building and Energy
BMPs	best management practices
CAAP	Climate Action and Adaptation Plan
CAAQS	California Ambient Air Quality Standards
Cal EMA	California Emergency Management Agency
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CAT	Climate Action Team
CCA	California Coastal Act
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CCSP	Climate Change Science Program
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CFC	California Fire Code

CH <sub>4</sub>	methane
City	City of Long Beach
CNG	compressed natural gas
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CPTED	Crime Prevention through Environmental Design
DOC	Department of Conservation
du	dwelling unit
du/acre	dwelling units per acre
du/lot	dwelling unit per lot
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
ETWU	Estimated Total Water Usage
EO	Executive Order
FAA	Federal Aviation Administration
FAR	floor-to-area ratio
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FIP	Federal Implementation Plan
ft	foot/feet
General Plan LUE/UDE Project	General Plan Land Use and Urban Design Elements Project
GHG	greenhouse gas
GWP	Global Warming Potential
HCP	Habitat Conservation Plans
HFCs	Hydrofluorocarbons
I-405	Interstate 405
I-605	Interstate 605
I-710	Interstate 710
IARC	World Health Organization International Agency for Research on Cancer
IFC	International Fire Code

IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
IS/NOP	Initial Study/Notice of Preparation
JFTB	Joint Forces Training Base
LACSD	Los Angeles County Sanitation Districts
LBFD	Long Beach Fire Department
LBPD	Long Beach Police Department
LBPL	Long Beach Public Library
LBUSD	Long Beach Unified School District
LCP	Local Coastal Program
LEV	low-emission vehicle
LID	Low Impact Development
LOS	level of service
LST	Localized Significance Thresholds
LUE	Land Use Element
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
MM	Mitigation Measure
MMLOS	Multimodal Level of Service
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization
N/A	not applicable
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Communities Conservation Plans
NO <sub>2</sub>	nitrogen dioxide
NOP	Notice of Preparation
NO <sub>x</sub>	nitrogen oxides
O <sub>3</sub>	ozone
OCTA	Orange County Transportation Authority

OPR	Office of Planning and Research
Pb	lead
PCH	Pacific Coast Highway (also known as State Route 1 or SR-1)
PDF	Project Design Feature
PFCs	Perfluorocarbons
PM	particulate matter
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in size
PM <sub>10</sub>	particulate matter less than 10 microns in size
PMP	(Port of Long Beach) Port Master Plan
PRC	Public Resources Code
proposed project	Climate Action and Adaptation Plan and Safety Element Update
PTSD	post-traumatic stress disorder
RCM	Regulatory Compliance Measure
RCP	Regional Comprehensive Plan
ROG	reactive organic gases
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAG	Southern California Association Governments
SCAQMD	South Coast Air Quality Management District
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SEAs	significant ecological areas
SEASP	Southeast Area Specific Plan
SEIR	Subsequent Environmental Impact Report
sf	square foot/feet
SF <sub>6</sub>	sulfur hexafluoride
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
SR-1	State Route 1 (also known as PCH)

SR-22	State Route 22
SR-47	State Route 47
SR-91	State Route 91
SR-103	State Route 103
SRE	Scenic Routes Element
SUSMP	Standard Urban Storm Water Mitigation Plan
T	Transportation
TAC	Toxic Air Contaminant
TDM	Transportation Demand Management
TOD	Transit Oriented Development
UDE	Urban Design Element
UPRR	Union Pacific Railroad
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Services
USGS	United States Geological Survey
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	volatile organic compound
W	Waste

## 1.0 EXECUTIVE SUMMARY

### 1.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that local government agencies, before taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Environmental Impact Report (EIR) is a public document designed to provide both the public and local and State governmental agency decision-makers with an analysis of potential environmental consequences to support informed decision-making.

This Executive Summary has been prepared according to *State CEQA Guidelines* Section 15123 for the Draft Subsequent EIR (SEIR) for the proposed Climate Action and Adaptation Plan (proposed project). This Draft SEIR has been prepared for the City of Long Beach (City) to analyze the proposed project's potential impacts on the environment; to propose mitigation measures for identified potentially significant impacts that would minimize, offset, or otherwise reduce or avoid those environmental impacts; and to discuss alternatives that could reduce the potentially significant impacts of the proposed project.

### 1.2 SUMMARY OF LOCATION AND SETTING

The planning area includes the entire 50 square miles within the limits of the City of Long Beach (excluding the City of Signal Hill, which is completely surrounded by the City of Long Beach) in Los Angeles County (County), California. The City is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton, Paramount, and Bellflower; and on the east by the Cities of Lakewood, Hawaiian Gardens, Cypress, Los Alamitos, and Seal Beach. The City is also bordered by the unincorporated communities of Rancho Dominguez to the north and Rossmoor to the east. The Pacific Ocean borders the southern portion of the City, and as such, portions of the City are located within the California Coastal Zone.

Regional access to the City is provided by Interstate 710 (I-710, which traverses the western portion of the City from north to south), Interstate 405 (I-405, which traverses the central portion of the City from northwest to southeast), State Route 91 (SR-91, which traverses the northernmost portion of the City from east to west), State Routes 103 and 47 (SR-103 and SR-47, respectively, which traverse the western border of the City from north to south), and State Route 1 (SR-1, which traverses the central portion of the City from east to west), commonly referred to as Pacific Coast Highway (PCH or SR-1). In addition, Interstate 605 and State Route 22 (I-605 and SR-22, respectively, and located northeast and east of the City) provide access to the eastern portion of the City.

In addition, a variety of transit routes maintained by the Los Angeles County Metropolitan Transportation Authority (Metro), the Long Beach Transit, and the Orange County Transportation Authority (OCTA) provides both regional and local access to and within the City. A variety of bicycle lanes and paths serves the City, including regional connections along PCH, the San Gabriel River pathway, and the Los Angeles River pathway.

### 1.3 SUMMARY OF THE PROJECT DESCRIPTION AND BACKGROUND

In December 2019, the Long Beach City Council approved the General Plan Land Use and Urban Design Elements Project (approved project) as an update to the City's General Plan intended to guide growth and future development through the horizon year 2040. As part of the approved project, the City Council also certified a Recirculated Draft EIR prepared for the project (referred to as the 2019 Certified Program EIR). The proposed Climate Action and Adaptation Plan (CAAP) was included in the 2019 Certified Program EIR as Mitigation Measure (MM) GHG-1 in order to reduce greenhouse gas (GHG) emissions associated with General Plan buildout.

This Draft SEIR has been prepared to evaluate the environmental impacts that may result from implementation of the proposed CAAP and Safety Element Update (proposed project). The proposed CAAP is a comprehensive planning document providing a framework to reduce future GHG emissions in the City of Long Beach through climate action strategies and lessen the impacts of climate change on the City through climate adaptation strategies. As a qualified climate action plan pursuant to the CEQA, the proposed CAAP provides the framework to achieve the City's GHG emissions reduction targets, and the CAAP Consistency Review Checklist (CAAP Checklist) would be used as the basis for future assessments of consistency with this plan in lieu of a project-specific GHG CEQA analysis for future discretionary projects subject to CEQA pursuant to Section 15183.5 of the *State CEQA Guidelines*. CEQA review of subsequent plans and projects that are consistent with the GHG emission reduction strategies and targets in the proposed CAAP may take advantage of CEQA streamlining for project-level GHG analysis on a project-by-project basis. The proposed Safety Element Update builds from the CAAP and is designed to address recent State legislation requiring cities to include goals, policies, objectives, and feasible implementation measures in the Safety Element that place a greater emphasis on climate change impacts, including increased risks related to wildfires and flooding. The proposed amendments would bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. This Draft SEIR constitutes the environmental review of the proposed CAAP and Safety Element Update as planning documents. Neither the proposed CAAP nor the Safety Element Update proposes physical improvements, and approval of these planning and policy documents would not constitute approval of any physical development. Any development or physical improvements incorporating features of the proposed project would be subject to project-specific CEQA review.

See Chapter 3.0, Project Description, for a complete description of the project components.

### 1.4 SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the *State CEQA Guidelines* requires that an EIR describe significant impacts that cannot be avoided if the proposed project is implemented, including those effects that can be mitigated but not reduced to a less than significant level. The purpose of the CAAP is to implement a range of actions to reduce GHG emissions and adapt to climate change impacts. The CAAP was developed to help implement the Land Use Element (LUE) in the most sustainable way possible. The GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. Because the proposed CAAP would not alter the land use designations or development assumptions of the adopted LUE, the proposed project would not alter the significance conclusions identified in the 2019 Certified Program EIR.

The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law, and as such, would not constitute approval of or entitle any physical development that would result in environmental impacts.

Therefore, as determined in this Draft SEIR, implementation of the proposed project would not result in any significant and unavoidable adverse impacts.

## 1.5 ALTERNATIVES

The City considered several project alternatives, including an alternative planning area, a smart growth alternative, and a reduced project alternative, but rejected these alternatives from further analysis in this Draft SEIR because they were determined to be infeasible, or they would not meet the basic Project Objectives. The reasons for dismissal of these alternatives are discussed further in Chapter 5.0, Alternatives. The proposed project would not result in any significant impacts. Therefore, there are no alternatives that would reduce significant impacts of the proposed project. However, the No Project Alternative was evaluated, as required by CEQA.

### 1.5.1 Alternative 1: No Project Alternative

Consistent with Section 15126.6 of the *State CEQA Guidelines*, the No Project Alternative assumes no adoption of the proposed CAAP and continued implementation of the existing General Plan Safety Element (2002) instead of the updates of the proposed project. The existing General Plan Safety Element would continue to guide and regulate the City's policies related to public safety and no planning or policy document would be adopted to provide strategies and actions to reduce the City's GHG emissions, reach its GHG emissions reduction targets and lessen the impacts of climate change on the City. In addition, no CAAP Consistency Checklist would be implemented for future discretionary projects to utilize in lieu of a project-specific GHG emissions analysis to ensure consistency of future development with the City's GHG emissions reductions goals. Further, MM GHG-1 from the 2019 Certified Program EIR would not be implemented as required.

The alternatives analysis is described in greater detail in Chapter 5.0, Alternatives.

## 1.6 AREAS OF CONTROVERSY

Pursuant to *State CEQA Guidelines* Section 15123, this Draft SEIR acknowledges the areas of controversy and issues to be resolved that are known to the City or that were raised during the scoping process. Major issues and concerns raised at the scoping meeting held via video conference on September 1, 2021, include the following:

- Concerns that the project would have direct impacts related to biological resources from the loss of sensitive habitat and open space from introduction of non-native, invasive plant species through landscaping, fuel modification areas, and grading.

- Concerns related to potential impacts to specific biological resources including Monarch butterfly habitat, jurisdictional waters and associated vegetation, significant ecological areas (SEAs), nesting birds, and bats.
- Recommendations that this Draft SEIR consider all facilities maintained by the Los Angeles County Sanitation District have the capacity consistent with the approved growth identified by the Southern California Association Governments (SCAG) in their regional growth forecast.
- Recommendations that the CAAP and Safety Element Update are analyzed for consistency with SCAG's adopted 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal.
- Recommendations to include Environmental Justice related goals and policies per Senate Bill (SB) 1000.
- Recommendation to review Caltrans policies, plans, and guidance strategies related to climate change impacts.
- Recommendation to engage in consultation with Native American tribes that are tribally and culturally affiliated with the geographic area of the proposed project pursuant to the requirements of Assembly Bill (AB) 52 and SB 18.

Please note that these are not exhaustive lists of areas of controversy, but rather key issues that were raised during the scoping process. The Draft SEIR addresses each of these areas of concern or controversy in detail, examines project-related and cumulative environmental impacts, and identifies significant adverse environmental impacts. There were no identified potentially significant impacts and, therefore, no mitigation measures were required.

## 1.7 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1.1 identifies the potential environmental impacts and level of significance associated with implementation of the proposed project. Table 1.1 also identifies cumulative impacts resulting from the proposed project. As stated above, no mitigation measures were required as all impacts were determined to be less than significant or no impact was identified.

Adoption of the proposed CAAP would not directly propose or entitle any physical improvements or new development. The GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not result in impacts greater than those anticipated in the 2019 Certified Program EIR.

All CAAP Actions and Adaptation Actions would be reviewed at the project level and under CEQA as applicable. Therefore, the analysis in this Draft SEIR focuses on the potential impacts from the measures included in the CAAP Checklist for future discretionary projects and the potential impacts of the CAAP Actions and Adaptation Actions at a programmatic level.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<b>4.1: AESTHETICS</b>		
<p><b>Threshold 4.1.1: Would the project have a substantial adverse effect on a scenic vista?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute approval of any physical development or grant any entitlements for development. All future discretionary projects will be reviewed in accordance with CEQA and for consistency with the goals and policies of the City of Long Beach’s (City) General Plan and development standards. The proposed project would also be consistent with the policies and goals of the adopted Land Use Element (LUE) and Urban Design Element (UDE) aimed at guiding the aesthetic character of new development in a manner that would not significantly inhibit or obstruct scenic vistas in the planning area. Future development and discretionary projects that would help implement CAAP Actions and Adaptation Actions through the CAAP Consistency Checklist, including implementation of required CAAP Actions related to Building and Energy, Transportation, and Waste would be anticipated and required to comply with standards established under the 2019 Certified Program EIR and are not anticipated to impact scenic vista. Implementation of the proposed CAAP would help achieve the goals and policies of the adopted LUE. There is not sufficient information at this time to analyze potential future physical improvements that may be needed to implement the proposed framework of Adaptation Actions in the CAAP, as specific projects and locations are unknown. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future improvements would be analyzed on a project level pursuant to CEQA and for consistency with policies and standards in the adopted LUE and UDE. Therefore, potential impacts of future development or discretionary projects on scenic vistas would be less than significant, and no mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts to scenic vistas. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<p><b>Threshold 4.1.2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> According to the Caltrans Scenic Highway Mapping System, there are no State-designated scenic highways in the planning area; however, PCH is considered to be an Eligible State Scenic Highway. Also, the City’s existing General Plan adopted UDE designated local scenic routes which include Ocean Boulevard and Livingston Drive and future expansions. The proposed project is considered a policy/planning action and does not constitute approval of physical development or grant any entitlements for development. Future development and discretionary projects that would implement the CAAP through the CAAP Consistency Checklist, including implementation of required CAAP Actions related to Building and Energy, Transportation, and Waste would be anticipated and required to comply with standards established under the General Plan Land Use and Urban Design Elements EIR. The CAAP also</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding; there is not sufficient information at this time to analyze potential future physical improvements that are suggested as Adaptation Actions in the CAAP, and additional analysis will be needed to develop specific adaptation approaches and projects at specific locations.</p> <p>Therefore, impacts related to substantial damage of scenic resources within a State-designated highway would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts to scenic resources within a State-designated scenic highway. No mitigation is required.</p>		
<p><b>Threshold 4.1.3: In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The planning area is currently characterized as a built-out urban environment. The CAAP Actions of the proposed project would be implemented with future discretionary projects and may result in changes to visual character or to public views within the planning area. However, the proposed project does not constitute approval of physical development or grant any entitlements for development, and all applicable CAAP Actions would be included in future discretionary projects in order to demonstrate consistency with the City’s GHG emissions reduction targets. Future discretionary projects within the City would be required to be consistent with the City’s design requirements, and thus, impacts related to the visual character would be less than significant in regard to CAAP Actions. The CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding; there is not sufficient information at this time to analyze potential future physical improvements that are suggested as Adaptation Actions in the CAAP, and additional analysis will be needed to develop specific adaptation approaches and projects at specific locations. All future projects to implement the CAAP will be analyzed pursuant to CEQA as required.</p> <p>Therefore, impacts related to scenic quality and visual character would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts to visual character of the planning area, or conflict with applicable zoning and other regulations governing scenic quality. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>Threshold 4.1.4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> There are existing sources of light in the project vicinity as well as lighting associated with several regional serving uses such as the Port of Long Beach, the Long Beach Airport, and the Pike at Rainbow Harbor. Adjacent residential areas, public facility uses, commercial uses, and industrial uses also emit light and glare. Future discretionary projects that implement CAAP Actions would have the potential to introduce new sources of light to the City typical of development projects. CAAP Actions that would occur in low-density residential areas have a very minimal effect on nighttime lighting. Conversely, the largest nighttime lighting would occur in areas proposed for commercial, industrial, or high-density mixed-uses. All future discretionary projects that implement the CAAP Actions or Adaptation Actions to achieve the City’s GHG emissions reduction targets would be reviewed under CEQA and would be required to comply with the design standards established in the adopted UDE and the City’s Municipal Code. Additionally, policies are intended to improve the overall visual character of the City through new development projects that would shape the urban environment of the City, while preserving existing development that defines its unique aesthetic character. There is not sufficient information at this time to analyze potential future physical improvements that are suggested as Adaptation Actions in the CAAP, and additional analysis will be needed to develop specific adaptation approaches and projects at specific locations.</p> <p>Therefore, the proposed project’s impact related to light and glare would be less than significant. No mitigation would be required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts from light and glare. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>
<p><b>Cumulative Aesthetics Impacts.</b></p> <p><b>Less Than Significant Impact.</b> CAAP Actions required for future discretionary projects, including measures related to Building and Energy, Transportation, Waste, as well as the Adaptation Actions, would not substantially alter the visual character of the planning area, as compared to existing conditions. The site design, landscaping, and architectural design of future discretionary projects would be required to be consistent with goals, policies, strategies, and development standards established by the adopted UDE, which are intended to avoid, reduce, offset, or otherwise minimized identified potential adverse impacts of the proposed project or provide significant benefits to the community and/or to the physical environment. Additional analysis will be needed to develop specific adaptation approaches and future discretionary projects would be analyzed on a project level for consistency with policies and standards in the adopted</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>LUE and UDE. CAAP Actions that would introduce more lighting would be implemented consistent with the lighting and development standards in the City’s Municipal Code. The proposed project does not constitute approval of physical development or grant any entitlements for development and would therefore not cumulatively have a significant adverse impact related to scenic vistas, scenic resources within a State scenic highway, visual character or quality of public views, or light and glare. No mitigation is required.</p> <p>Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts from light and glare. No mitigation is required.</p>		
<b>4.2: AIR QUALITY</b>		
<p><b>Threshold 4.2.1: Would the project conflict with or obstruct implementation of the applicable air quality plan?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed CAAP was included as Mitigation Measure (MM) GHG-1 in the 2019 Certified Program EIR. As a programmatic planning document that does not constitute approval for any physical improvements or development and does not alter the land use designations or development assumptions of the General Plan buildout condition, the proposed project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the AQMP. Therefore, the proposed project would not conflict with or obstruct the implementation of the air quality plans prepared by SCAQMD to attain State and national air quality standards or violate any air quality standard. As such, the proposed CAAP would result in a less than significant impact related to a conflict or obstruction of implementation of applicable air quality plans. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would conflict or obstruct implementation of applicable air quality plans. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<p><b>Threshold 4.2.2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The Basin is currently designated nonattainment for the federal and State standards for ozone (O<sub>3</sub>), and particulate matter less than 2.5 microns in size (PM<sub>2.5</sub>), as well as the particulate matter less than 10 microns in size (PM<sub>10</sub>) standard, which is attributed to the region’s development history. The proposed CAAP does not include physical improvements or development. All future discretionary projects that implement CAAP Actions or Adaptation Actions or utilize the CAAP Checklist for GHG streamlining would implement measures to support the CAAP Actions to achieve the City’s GHG emissions reduction targets, which would also serve to reduce air quality emissions. Therefore,</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>the potential program-level operational impacts of the CAAP to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard would be less than significant. Additionally, all future discretionary projects that implement the CAAP Actions or Adaptation Actions would be reviewed under CEQA as required. Thus, the proposed project would result in a less than significant impact related to a cumulatively considerable net increase of any criteria pollutant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard. No mitigation is required.</p>		
<p><b>Threshold 4.2.3: Would the project expose sensitive receptors to substantial pollutant concentrations?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Adoption of the proposed CAAP would not constitute approval for any physical improvements or development that would result in the exposure of sensitive receptors to substantial pollutant concentrations. The SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors such as residential land uses in the immediate vicinity of the project site as a result of construction activities through the use of Localized Significance Thresholds (LSTs). However, the LSTs are not applicable to programmatic documents, such as the proposed CAAP. Additionally, all future discretionary projects implementing CAAP Actions would be reviewed in accordance with CEQA and would require further evaluation to demonstrate that emissions would not exceed SCAQMD’s LSTs. Therefore, the proposed CAAP would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would expose sensitive receptors to substantial pollutant concentrations. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<p><b>Threshold 4.2.4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Although the proposed CAAP does not constitute or entitle any physical development, CAAP Actions and Adaptation Actions implemented with future discretionary projects could generate new sources of odors. However, all future discretionary projects would be subject to project-level CEQA review to determine if impacts related to odors would occur and if project-specific mitigation is required. Therefore, for these reasons and because the proposed CAAP does not constitute or entitle any physical development, impacts associated with odors would be considered less than significant. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not facilitate or entitle any physical development that would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. No mitigation is required.</p>		
<p><b>Cumulative Air Quality Impacts.</b></p> <p><b>Less Than Significant Impact.</b> Cumulative growth within the City could increase pollutant concentrations and contribute to existing air pollution in the Basin. The proposed project does not include physical improvements or development; however, project implementation assumes that future discretionary projects would implement CAAP Actions to achieve the City’s GHG emissions reduction targets. Future development and discretionary projects that would implement CAAP Actions related to Building and Energy, Transportation, and Waste would be subject to CEQA and demonstrate consistency with local, State, and federal air quality standards that are intended to protect air quality. In addition, future development facilitated by the proposed CAAP would be required to comply with California Air Resources Board (CARB) motor vehicle standards, South Coast Air Quality Management District (SCAQMD) regulations from stationary sources and architectural coatings, and Title 24 energy efficiency standards. Where there is the potential for cumulative impacts, they would be addressed through project-level environmental review and permitting. As such, the CAAP as a program-level document would not cumulatively contribute to air quality impacts. No mitigation is required.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant impacts. Therefore, the Safety Element Update would not cumulatively contribute to air quality impacts. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<b>4.3: ENERGY</b>		
<p><b>Threshold 4.3.1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed CAAP does not include physical improvements or development; however, project implementation assumes future discretionary projects would implement CAAP Actions to achieve the City’s GHG emissions reduction targets. The CAAP Actions for Building and Energy included on the Consistency Checklist include actions that encourage the construction or installation of new facilities aimed to increase access to renewable energy and increase use of solar panels. As the CAAP Actions related to Building and Energy are largely improvements to existing facilities or operational programs to reduce emissions, these CAAP Actions would not result in wasteful or inefficient energy use during construction or operation of future discretionary projects. In addition, by incorporating sustainability elements with existing and proposed facilities, the proposed CAAP would result in a beneficial effect to the City’s overall energy demand and would not result in any wasteful or inefficient energy usage.</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>All future discretionary projects that implement the CAAP Actions or Adaptation Actions to achieve the City’s GHG emissions reduction targets would be reviewed in accordance with CEQA and would require further evaluation to demonstrate that such projects would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. There is not sufficient information at this time to analyze potential future physical improvements that are suggested as Adaptation Actions in the CAAP, and additional analysis will be needed to develop specific adaptation approaches and projects at specific locations. Therefore, potential impacts of the CAAP Actions and Adaptation Actions to result in wasteful, inefficient, or unnecessary consumption of energy resources, would be less than significant. No mitigation would be required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development and, as such, would not result in any potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources. No mitigation required.</p>		
<p><b>Threshold 4.3.2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Energy usage during construction would be temporary in nature and all future discretionary projects would be reviewed in accordance with CEQA to demonstrate that construction activities would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. Additionally, CAAP Actions would support energy conservation and renewable energy, encourage alternative transportation, promote mixed-use development, reduce vehicle trips and vehicle miles traveled (VMT), and foster energy efficiency, supporting the goals of the City’s Sustainable City Action Plan. Further, the proposed CAAP identifies Adaptation Actions that prioritize the locations and types of future projects that may be needed to lessen climate change. There is not sufficient information at this time to analyze potential future physical improvements that are suggested as Adaptation Actions in the proposed CAAP; however, it is not expected that these Adaptation Actions would generate substantial energy demand and any future projects would undergo project-level CEQA review as required.</p> <p>The proposed CAAP would result in both a decrease in energy demands overall and an increase in renewable energy production. Therefore, potential impacts of the CAAP Actions to result in wasteful, inefficient, or unnecessary consumption of energy resources, during project operation, would be less than significant, and implementation of the CAAP would not conflict with or obstruct the City’s Sustainable City Action Plan or any other State plans related to energy efficiency. No mitigation would be required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>or entitle any physical development and, as such, would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. No mitigation is required.</p>		
<p><b>Cumulative Energy Impacts.</b></p> <p><b>Less Than Significant Impact.</b> The proposed project does not constitute approval for any physical improvements or development; however, project implementation assumes future discretionary projects would implement CAAP Actions to achieve the City’s GHG emissions reduction targets. CAAP Actions support energy conservation and renewable energy, encourage alternative transportation, promote mixed-use development, and encourage recycling compliance and expanded organic waste collection. Further, the proposed CAAP identifies Adaptation Actions that prioritize the locations and types of future projects that may be needed to lessen climate change. However, it is not expected that these adaptations strategies would generate substantial energy demand. Therefore, implementation of CAAP Action and Adaptation Actions would promote energy efficiency and not cumulatively contribute to energy impacts. No mitigation is required.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant energy impacts. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>
<b>4.4: GREENHOUSE GAS EMISSIONS</b>		
<p><b>Threshold 4.4.1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project does not constitute approval for any physical improvements or development; however, project implementation assumes future discretionary projects would implement CAAP Actions to achieve the City’s GHG emissions reduction targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed project would reduce the City’s impact on climate change by reducing future GHG emissions and would result in a less than significant impact related to construction and operational GHG emissions. In addition, implementation of the Adaptation Actions would not have a significant impact on the environment as a result of GHG emissions. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>Threshold 4.4.2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?</b></p> <p><b>CAAP: Less Than Significant Impact.</b></p> <p><b>CARB 2017 Scoping Plan:</b> The proposed CAAP would meet the GHG emissions reduction targets for 2030, which align with the adopted targets for the 2017 Scoping Plan. The proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in Assembly Bill (AB) 32, the AB 32 Scoping Plan, and Executive Order (EO) B-30-15, Senate Bill (SB) 32, and AB 197 and would be consistent with applicable State plans and programs designed to reduce GHG emissions. Therefore, impacts are considered less than significant, and no mitigation is required.</p> <p><b>SCAG RTP/SCS:</b> The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as forecast development that is generally consistent with regional-level general plan data. The CAAP is designed to help implement the land use strategies of the Long Beach LUE, which is based on land use strategies of the RTP/SCS. Implementing SCAG’s RTP/SCS would greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emissions reduction targets, and the project would not conflict with the stated goals of the RTP/SCS. Additionally, the intent of the proposed Adaptation Actions is consistent with the goals of the RTP/SCS. Therefore, the proposed project would not conflict with an adopted plan, policy, or regulation pertaining to GHG emissions, and impacts are considered less than significant. No mitigation is required.</p> <p><b>City of Long Beach Sustainable City Action Plan:</b> The Sustainable City Action Plan is a City-adopted plan to guide the City in becoming more sustainable. The proposed CAAP includes various policies that are and would be consistent with these goals and initiatives of the Sustainable City Action Plan to reduce solid waste, improve transportation, and address climate change. Therefore, the proposed project would not conflict with this adopted plan, and impacts are considered less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>Cumulative Greenhouse Gas Emissions Impacts.</b></p> <p><b>Less Than Significant Impact.</b> The proposed project does not include physical improvements or development; however, project implementation assumes that future discretionary projects would implement CAAP Actions to achieve the City’s GHG emissions reduction targets. The CAAP Actions would reduce the City’s impact on climate change by reducing future GHG emissions. In addition, implementation of the Adaptation Actions would not have a significant impact on the environment as a result of GHG emissions. Thus, the proposed project would have a beneficial impact on GHG emissions and would not have a cumulatively significant impact. No mitigation is necessary.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant GHG impacts. Therefore, the Safety Element Update would not cumulatively contribute to GHG impacts. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>
<b>4.5: LAND USE AND PLANNING</b>		
<p><b>Threshold 4.5.1: Would the project divide an established community?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The planning area is almost entirely developed and is characterized by a mix of PlaceTypes. The proposed CAAP is a policy-level planning document that does not include physical improvements or development that would have the potential to divide an established community or have any direct physical impacts. However, project implementation assumes future discretionary projects would implement applicable CAAP Actions to achieve the City’s greenhouse gas (GHG) emissions reduction targets. CAAP Actions include measures related to Building and Energy, Transportation, Waste, and would not physically divide an established community. Implementation of small-scale building and energy and waste improvements are anticipated to be included with future development projects and are not anticipated to involve construction of large buildings or structures of a scale that would divide an established community. Future discretionary projects for new transit facilities and increased residential, commercial, and mixed-use development that may result in the development of structures would be evaluated for consistency with the adopted LUE and UDE, and the Mobility Element. The CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding; future discretionary projects would be analyzed on a project level under CEQA and for consistency with policies and standards in the adopted LUE and UDE. Therefore, impacts relating to division of established communities would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would physically divide a community. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>Threshold 4.5.2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?</b></p> <p><b>CAAP: Less Than Significant Impact.</b></p> <p><b>California Coastal Act:</b> The proposed project would not constitute approval of or entitle any physical development within the Coastal Zone, and adoption of the CAAP would not require any CDPs from the CCC. Additionally, the intent of Adaptation Actions is consistent with goals of the CCA to preserve and maintain coastal resources, and thus impacts would be considered less than significant. No mitigation is required.</p> <p><b>Local Coastal Program Consistency:</b> The City’s Local Coastal Program (LCP) outlines provisions related to the following general policies: Transportation and Access; General Housing Policy; Park Dedication Policy; and Strand Use and Access. The proposed project would be consistent with applicable provisions of the LCP related to all these general policies. Additionally, as the City updates zoning in each specific area as part of its comprehensive zoning update, the City will also update the LCP and submit it to the California Coastal Commission (CCC) for review and approval. Therefore, approval of these future LCP updates and amendments would reduce potential inconsistencies with the City’s LCP. Impacts are considered less than significant, and no mitigation is required.</p> <p><b>SCAG 2008 Regional Comprehensive Plan:</b> The CAAP was developed to help implement the LUE in the most sustainable way possible, and the LUE was designed to be consistent with the Regional Comprehensive Plan (RCP) as described in the 2019 Certified Program EIR. The proposed CAAP Actions would encourage development along transit corridors, promote new housing and employment options along transit corridors, and would help the City meet its GHG reduction goals, thereby remaining consistent with the 2008 RCP goals. Impacts are considered less than significant, and no mitigation is required.</p> <p><b>SCAG RTP/SCS Consistency:</b> The CAAP Actions would ensure that future discretionary projects reduce GHG emissions through implementation of CAAP Actions for Transportation that are consistent with the goals of Connect SoCal. Further, Adaptation Actions would require a project-specific consistency analysis, the intent of these actions is consistent with goals of Connect SoCal to expanding transit access. Impacts are considered less than significant, and no mitigation is required.</p> <p><b>General Plan, Specific Plan, Port Master Plan, and Airport Land Use Plan Consistency:</b> Adoption of the CAAP and implementation of the CAAP Actions and Adaptation Actions would reduce GHG emissions and allow the City to adapt to climate change impacts consistent with the adopted goals and policies of the City’s General Plan. Future discretionary projects to incorporate measures to support the CAAP Actions and Adaptation Actions would also be reviewed for consistency with adopted land use plans currently regulating development in the City, such as adopted specific plans, the Port Master Plan, and the Airport</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>Land Use Plan. Therefore, the project would not conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would conflict with any adopted land use plans. No mitigation is required.</p>		
<p><b>Cumulative Land Use and Planning Impacts.</b></p> <p><b>Less Than Significant Impact.</b> Because the proposed project is a citywide policy/planning action that includes strategies and measures that would apply to future discretionary projects throughout the entire City, the proposed project itself is cumulative in nature. As such, future discretionary projects to implement CAAP Actions would be subject to project-level CEQA review as required and General Plan consistency analysis and would be reviewed for consistency with all applicable adopted land use plans and policies. For this reason, cumulative impacts associated with inconsistency of future development with adopted plans and policies would be less than significant. The proposed CAAP would implement Mitigation Measure (MM) GHG-1 of the 2019 Certified Program EIR and ensure consistency with the policies of the adopted LUE. Therefore, land use impacts associated with the proposed project would be considered less than cumulatively significant, and no mitigation would be required.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant land use or planning impacts. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<b>4.6: NOISE</b>		
<p><b>Threshold 4.6.1: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project does not include physical improvements or development; however, project implementation assumes future discretionary projects would implement CAAP Actions to achieve the City’s GHG emissions reduction targets. Construction of these future discretionary projects does not constitute the CAAP project, therefore, the proposed project would result in a less than significant impact related to short -term substantial increases in ambient noise levels. Further, discretionary projects that would implement CAAP Actions would be consistent with the adopted LUE as analyzed in the 2019 Certified Program EIR and would therefore, not result in additional impacts related to the exposure of sensitive land uses to noise. Therefore, implementation of the project would not expose persons to long-term noise levels above the City’s Municipal Code. Potential operational noise impacts of the Adaptation Actions would also be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
or entitle any physical development that would result in noise impacts. No mitigation is required.		
<p><b>Threshold 4.6.2: Generate excessive ground-borne vibration or ground-borne noise levels?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Adoption of the proposed CAAP would not constitute approval for any physical improvements or development, nor would it grant any entitlements for development that would result in ground-borne vibration or noise. The CAAP Actions that would be implemented with future discretionary projects would not require construction methods that would generate excessive ground-borne vibration or ground-borne noise levels or result in an increase in the number of large trucks or add any sources of permanent operational ground-borne vibration. All future discretionary projects that would implement the CAAP Actions or Adaptation Actions would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted, including the Noise Ordinance requirements limiting the operation of any device that creates vibration that is above the vibration perception threshold. As such, impacts of the CAAP Actions and Adaptation Actions related to excessive ground-borne vibration or ground-borne noise levels would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in noise or vibration impacts. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<p><b>Threshold 4.6.3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Adoption of the proposed CAAP would not constitute any physical development of any buildings or structures, nor would it grant any entitlements for development. New solar, solid waste, mixed-use and transit-oriented development projects or other improvements or facilities incorporated into future discretionary projects to implement the CAAP Actions may generate a limited number of new employees and could generate a residential population that may be located in proximity to the Long Beach Airport, exposing people residing or working in these areas to excessive noise levels from aviation activities. Adoption of the CAAP as a policy action would not present additional impacts as it does not constitute or entitle any physical development, and all future discretionary projects would be required to undergo the Site Plan Review process to be compliant with federal, State, and local aviation safety regulations. With compliance with local and State regulations and requirements, the proposed project would have less than significant impacts related to the exposure of sensitive receptors to excessive noise levels from aircraft noise sources. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
or entitle any physical development that would result in noise impacts. No mitigation is required.		
<p><b>Cumulative Noise Impacts.</b></p> <p><b>Less Than Significant Impact.</b> The proposed project does not constitute or entitle any physical improvements or development; however, cumulative growth within the City could result in temporary or periodic increases in ambient noise levels throughout the City. Construction activities associated with future discretionary projects that implement the CAAP Actions or Adaptation Actions would be subject to compliance with the City’s Noise Ordinance to ensure that noise impacts from construction sources are reduced. Additionally, the CAAP Actions would be implemented in part through future discretionary projects would be evaluated for consistency with the adopted LUE, and the proposed CAAP would not cause a cumulatively considerable contribution to regional noise conditions as it does not constitute or entitle any physical development. Therefore, implementation of the proposed project is less than cumulatively significant. No mitigation is required.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant noise impacts. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<b>4.7: POPULATION AND HOUSING</b>		
<p><b>Threshold 4.7.1: Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute or entitle any physical improvements or development; however, project implementation assumes future discretionary projects would implement CAAP Actions to achieve the City’s greenhouse gas (GHG) emissions reduction targets. Adoption of the proposed CAAP would not induce population growth beyond what was anticipated in the 2019 Certified Program EIR, and all future discretionary projects that implement the CAAP Actions or Adaptation Actions would be reviewed under CEQA for consistency with the General Plan. Further, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to unplanned population growth. Therefore, the proposed project would result in less than significant impacts with respect to the inducement of substantial unplanned population growth in an area. No mitigation would be required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or result in any physical development that would result in impacts related to substantial unplanned population growth. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>Threshold 4.7.2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute or entitle any physical improvements or grant any entitlements for development that would displace housing or people. Adoption of the CAAP and future discretionary projects that implement CAAP Actions or Adaptation Actions would not displace substantial numbers of existing housing or people because the CAAP would not change local land use plans, and future facilities supported by the CAAP Actions would be reviewed for consistency with the General Plan. Therefore, the proposed project would not result in the displacement of substantial numbers of existing housing or people, necessitating the need for replacement housing elsewhere. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or result in any physical development that would displace housing or necessitate additional housing. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>
<p><b>Cumulative Population and Housing Impacts.</b></p> <p><b>Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute physical improvements or grant any entitlements for development. Therefore, implementation of the proposed project would not result in a cumulatively significant population or housing impact and the CAAP Actions or Adaptation Actions would not result in future development that would induce growth in areas where growth was not previously anticipated. Also, the text amendments to the Safety Element would not constitute or entitle any development that would result in impacts to increased population or housing or induced growth within the City. The proposed project’s contribution to impacts on population and housing would not be cumulatively considerable, and no mitigation would be required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>
<p><b>4.8: PUBLIC SERVICES</b></p>		
<p><b>Threshold 4.8.1: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection?</b></p> <p style="text-align: center;"><b>OR</b></p> <p><b>Threshold 4.8.2: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in</b></p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>order to maintain acceptable service ratios, response times, or other performance objectives for police protection?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute any physical improvements or grant any entitlements for development that would result in the provision of new or physically altered governmental facilities; however, project implementation assumes future discretionary projects would implement CAPP Actions to achieve the City’s GHG emissions targets. The CAAP would be consistent with the adopted LUE and UDE, and thus there would be no increase in service demands beyond those already contemplated in the 2019 Certified Program EIR. All future discretionary projects that implement the CAAP Actions or Adaptation Actions to achieve the City’s GHG emissions targets would be reviewed under CEQA as required. Additionally, all future development projects would be subject to applicable local regulations, requirements, and development impact fees, as well as State and federal laws, including the payment of the adopted fire facility impact fees. Therefore, impacts to fire protection or police protection services and facilities would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts to police or fire services. No mitigation is required.</p>		
<p><b>Threshold 4.8.3: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for public schools?</b></p> <p style="text-align: center;"><b>OR</b></p> <p><b>Threshold 4.8.5: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any other public facility?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute or entitle any physical improvements or development that would result in the demand for public schools or any other public facilities. The CAAP would be consistent with the adopted LUE and UDE, and thus service demands would not exceed those already contemplated in the 2019 Certified Program EIR. All future discretionary projects that implement the CAAP Actions or Adaptation Actions to achieve the</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>City’s GHG emissions targets would be reviewed under CEQA as required, Additionally, all future development projects would be subject to applicable local regulations, requirements, and development impact fees, as well as State and federal laws, including the payment of the adopted school impact fees as required. Therefore, impacts to schools would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts to public schools or facilities. No mitigation is required.</p>		
<p><b>Threshold 4.8.4: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute or entitle any physical improvements or development that would result in increased demand or performance impacts for parks. The CAAP would be consistent with the adopted LUE and UDE, and thus service demands would not result in impacts beyond those already contemplated in the 2019 Certified Program EIR. All future discretionary projects that implement the CAAP Actions or Adaptation Actions to achieve the City’s GHG emissions targets would be reviewed under CEQA and would be required to undergo the Site Plan Review process. Additionally, all future development projects would be subject to applicable local regulations, requirements, and development impact fees, as well as State and federal laws, including the payment of any required park fees. Therefore, impacts to parks would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts to public services including parks. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<p><b>Cumulative Public Services Impacts.</b></p> <p><b>Less Than Significant Impact.</b> The GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. Because the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the CAAP would be consistent with the adopted LUE and would not result in a population increase greater than projected for the buildout of the adopted LUE because the CAP would not change local land use plans. Therefore, the proposed project’s contribution to fire, police protection, school, parks, and other public facility impacts would not be cumulatively considerable, and no mitigation would be required.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>result in cumulatively significant public services impacts. No mitigation is required.</p>		
<p><b>4.9: RECREATION</b></p>		
<p><b>Threshold 4.9.1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?</b></p> <p style="text-align: center;"><b>OR</b></p> <p><b>Threshold 4.9.2: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute or entitle any physical improvements or development that would include the construction of recreational facilities or result in the increased use of existing parks or other recreational facilities. Because the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the CAAP would be consistent with the adopted LUE. Future discretionary projects would be subject to review under CEQA and consistency with the adopted LUE. Therefore, the proposed project would result in less than significant impacts related to the increased use of existing parks or other recreational facilities and the construction or expansion of recreational facilities. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts to parks or recreational facilities. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>
<p><b>Cumulative Recreation Impacts.</b></p> <p><b>Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute or entitle any physical improvements or development that would include recreational facilities or result in the increased use of existing neighborhood and regional parks or other recreational facilities. Because the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the CAAP would be consistent with the adopted LUE. Future discretionary projects would be subject to review under CEQA and consistency with the adopted LUE. Therefore, the proposed project's contribution to parks and recreational facility impacts would not be cumulatively considerable. No mitigation would be required.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant recreation impacts. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<b>4.10: TRANSPORTATION</b>		
<p><b>Threshold 4.10.1: Would the project conflict with program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project does not constitute approval of or entitle any physical improvements or development; however, project implementation assumes future discretionary projects would implement CAAP Actions and applicable Adaptation Actions to achieve the City’s GHG emissions targets and could involve energy efficiency improvements, sourcing of clean electricity, new transit and waste facilities, and changes to the existing streetscape such as expanded bicycle and pedestrian networks. Construction of these facilities may temporarily disrupt traffic flows on area roadways from the use of heavy-duty construction vehicles and could temporarily disrupt alternative modes of transportation by blocking bicycle or pedestrian pathways or public transit lanes or result in lane closures. However, these future improvements are not a part of the proposed CAAP, and all future discretionary projects that implement the CAAP Actions or Adaptation Actions would be reviewed under CEQA. Therefore, the proposed project would result in a less than significant impact related to conflicts with applicable plans, ordinances, or policies related to the transportation circulation system. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in conflicts with applicable plans, ordinances, or policies related to the transportation circulation system. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<p><b>Threshold 4.10.2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed CAAP would promote a reduction of VMT, and a CAAP Action is designed to ensure the City implements SB 743 (see T-9). To that end, the City adopted VMT guidelines in 2020 consistent with SB 743 and the proposed CAAP. The proposed project includes measures to support the CAAP Actions related to Building and Energy, which would be constructed within or on existing or proposed buildings (e.g., solar facilities on rooftops) and are not expected to result in additional VMT impacts. Measures to support the CAAP Actions related to Transportation include expansion of the bicycle and pedestrian network and other measures to reduce VMT, and increased housing and employment along major transit corridors and increased density and mixing of land uses. Development of housing and employment along transit centers would not result in additional impacts related to VMT beyond those anticipated in the adopted LUE and the 2019 Certified Program EIR; rather, the CAAP is designed to maximize GHG reduction, including through VMT reduction, as part of LUE implementation. In addition, future discretionary projects that implement measures to support the CAAP Actions related to increased transit, bicycle, and pedestrian facilities would also support reductions in VMT as analyzed in the</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>2019 Certified Program EIR. Measures to support the CAAP Actions for Waste include, but are not limited to, actions that encourage recycling compliance and expanded organic waste collection, which may result in new facilities for organic waste processing. However, such new facilities would be subject to their own project-level CEQA review. The proposed CAAP Actions implemented with future discretionary projects would result in a decrease in VMT from existing conditions and compared to the adopted LUE, and thus implementation of the proposed CAAP would have a less than significant impact related to <i>State CEQA Guidelines</i> Section 15064.3 subdivision (b). No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in VMT impacts. No mitigation is required.</p>		
<p><b>Threshold 4.10.3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Adoption of the proposed CAAP would not constitute or entitle any physical development of any buildings or structures, nor would it grant any entitlements for development that would result in increased design hazards. Most of the CAAP Actions that would be implemented with future discretionary projects through the Consistency Checklist would not change the existing area roadways and would therefore not cause a substantial increase in hazards due to design features or incompatible uses. Additionally, with compliance with State and local regulations and design guidelines, roadways and transit improvements promoted by the CAAP would not substantially increase hazards due to design features or incompatible uses, and impacts related to potential hazards due to incompatible uses are considered to be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in potential hazards. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<p><b>Threshold 4.10.4: Would the project result in inadequate emergency access?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Adoption of the proposed CAAP would not constitute or entitle any physical development of any buildings or structures, nor would it grant any entitlements for development that would result in inadequate emergency access. All future discretionary projects that would implement measures to support the CAAP Actions or Adaptation Actions would be subject to project-level review under CEQA and required to comply with any requirements in effect when the review is conducted. Such future discretionary projects would also be reviewed on a project-by-project basis for compatibility with adjacent land uses, and mitigation would be identified during project-level review as appropriate. It should be noted that the construction of any future discretionary projects is not a part of the CAAP project; they are future projects that utilize the CAAP Checklist for GHG analysis streamlining. Therefore, impacts related</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>to emergency access would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in emergency access impacts. No mitigation is required.</p>		
<p><b>Cumulative Transportation Impacts.</b></p> <p><b>Less Than Significant Impact.</b> The proposed project does not facilitate or entitle any physical improvements or development. All future discretionary projects that would implement measures to support the CAAP Actions or Adaptation Actions would be subject to project-level review under CEQA. In the event that the construction of a nearby project occurs at the same time as the construction of a project that would implement a CAAP Action or Adaptation Action, cumulative construction traffic effects could occur. However, these future projects are not a part of the CAAP policy document, which itself does not include any physical development. Further, once future project-specific details and locations are known, the potential for cumulative impacts would be addressed through project-level environmental review and permitting. Therefore, implementation of the proposed project would be less than cumulatively significant, and no mitigation is required.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant transportation impacts. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<b>4.11: TRIBAL CULTURAL RESOURCES</b>		
<p><b>Threshold 4.11.1(i): Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?</b></p> <p style="text-align: center;"><b>OR</b></p> <p><b>Threshold 4.11.1(ii): Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the</b></p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>significance of the resource to a California Native American tribe.</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute or entitle any physical improvements or development that would disturb soils in the planning area. There are several CAAP Actions that would be implemented with future discretionary projects that would involve retrofits to existing buildings or may be sited in locations that would result in potential impacts to tribal cultural resources. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. During the project-specific CEQA analysis, a review of the California Register would be conducted as well as review of any the City’s local registers of historical resources, as provided in the City’s Historic Preservation Element, and all future discretionary projects would be subject to the requirements of AB 52 for Native American consultation. Future discretionary improvements related to Adaptive Actions would be analyzed on a project level and project-specific tribal consultation pursuant to the requirements of AB 52 and/or SB 18 would be conducted. Therefore, potential impacts of the CAAP Actions and Adaptation Actions would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or entitle any physical development that would result in impacts to tribal cultural resources. No mitigation is required.</p>		
<p><b>Cumulative Tribal Cultural Resources Impacts.</b></p> <p><b>Less Than Significant Impact.</b> Cumulative growth within the City could result in potential impacts to tribal cultural resources at specific development sites throughout the City. However, the proposed project does not constitute or entitle any physical improvements or development. If multiple future discretionary projects used to implement CAAP Actions would result in impacts to tribal cultural resources, cumulative impacts to tribal cultural resources could occur. Where there is the potential for these cumulative impacts, they would be addressed through project-level CEQA review and permitting and would be subject to compliance with State law as well as the City’s standard requirements. Therefore, implementation of the proposed project is less than cumulatively significant, and no mitigation is required.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulative Tribal Cultural Resources impacts. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<b>4.12: UTILITIES AND SERVICE SYSTEMS</b>		
<p><b>Threshold 4.12.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?</b></p> <p style="text-align: center;"><b>OR</b></p> <p><b>Threshold 4.12.2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> The proposed project is considered a policy/planning action and does not constitute or entitle any physical improvements or development. The proposed CAAP Actions include measures related to Building and Energy (BE), Transportation (T), and Waste (W). These CAAP actions would be developed consistent with the land uses and standards of the adopted LUE and resulting PlaceTypes and would be subject to CEQA review and would not result in significant population growth or additional water demand.</p> <p>All future discretionary projects that implement the CAAP Actions or Adaptation Actions to achieve the City’s GHG emissions targets would be reviewed under CEQA and would be required to undergo the Site Plan Review process, during which the City would identify potable water systems serving a project and would assess Plumbing Permit and Plan Check Fees. Payments of these fees would fund future upgrades to water facilities within the planning area. Therefore, impacts are considered less than significant, and no mitigation would be required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or result in any physical development that would result in impacts related to water demand or water facilities. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.
<p><b>Threshold 4.12.1: Would the project require or result in the relocation or construction of new or expanded water, <u>wastewater</u> treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?</b></p> <p style="text-align: center;"><b>OR</b></p> <p><b>Threshold 4.12.3: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitment?</b></p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>CAAP: Less Than Significant Impact.</b> Implementation of the proposed CAAP does not constitute or entitle any physical development of any buildings or structures, nor would it grant any entitlements for development that would result in changes to utilities and service systems. These CAPP Actions would not result in additional population growth or the need for additional wastewater facilities. Additionally, the CAAP Actions or Adaptation Actions would be implemented through future discretionary projects that would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted, including sewer capacity considerations as part of the City development review and approval process. For example, projects would be required to pay Sewer Capacity Fees to fund the construction, reconstruction, maintenance, and operation of existing and future improvements to the sanitary sewer system, including improvements outlined in the City’s 2021 Capital Improvement Program. Therefore, potential impacts of the proposed project related to wastewater treatment, or the construction of wastewater supply or conveyance facilities would be less than significant, and no mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or result in any physical development that would result in impacts related to wastewater facilities. No mitigation is required.</p>		
<p><b>Y Threshold 4.12.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or <u>storm water drainage</u>, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Implementation of the proposed CAAP does not constitute or entitle any physical development of any buildings or structures, nor would it grant any entitlements for development that would result in changes to utilities and service systems. All future discretionary projects that would implement the CAAP Actions or Adaptation Actions would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted, including requirements to comply with the provisions of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), or any other subsequent applicable permits. Furthermore, as future individual projects are proposed, the City would review grading plans and construction documents to identify project features aimed at reducing construction impacts to storm drain facilities. Therefore, potential impacts of the CAAP Actions related to the relocation or construction of new or expanded stormwater drainage facilities would be less than significant. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or result in any physical development that would result in impacts related to stormwater facilities. No</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
mitigation is required.		
<p><b>Threshold 4.12.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, <u>electric power, natural gas, or telecommunications facilities</u>, the construction or relocation of which could cause significant environmental effects?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Refer to Section 4.3, Energy, for further discussion related to project-related impacts with respect to electric power and natural gas facilities. Implementation of the proposed CAAP does not constitute or entitle any physical development of any buildings or structures, nor would it grant any entitlements for development that would result in changes to provision of electric power or natural gas. The CAAP Actions would not result in additional population growth or the need for additional natural gas or electricity facilities. All future discretionary projects that would implement the CAAP Actions or Adaptation Actions would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted. CAAP Actions are expected to promote energy efficiency in existing and new buildings, resulting in the reduction of electric power and natural gas demand. Where necessary, infrastructure improvements would be made to serve proposed projects subject to further environmental review depending on the extent and nature of those improvements. Therefore, implementation of the proposed project would result in less than significant impacts related to the construction or relocation of existing electricity and natural gas facilities, and no mitigation would be required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or result in any physical development that would result in increased demand for or impacts related to electricity and natural gas facilities. No mitigation is required.</p>		
<p><b>Threshold 4.12.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or <u>telecommunications facilities</u>, the construction or relocation of which could cause significant environmental effects?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Implementation of the proposed CAAP does not constitute or entitle any physical development of any buildings or structures, nor would it grant any entitlements for development that would result in changes to telecommunications facilities. All future discretionary projects that would implement the CAAP Actions or Adaptation Actions would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted. Where necessary, infrastructure improvements would be made to existing telecommunications facilities in order to meet customer demands and achieve compliance with the City’s LUE goal of investing in telecommunications</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p>infrastructure systems (LU-M-13). Most telecommunications facilities in the City are currently located within existing right-of-way areas and/or are located underground. As such, environmental impacts associated with future improvements to telecommunications facilities are anticipated to be minimal, as these facility areas would have previously been disturbed through association with past infrastructure improvements. Therefore, implementation of the proposed project would result in less than significant impacts related to the construction or relocation of existing telecommunications facilities, and no mitigation would be required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or result in any physical development that would result in increased demand or impacts related to telecommunications facilities. No mitigation is required.</p>		
<p><b>Threshold 4.12.4: Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?</b></p> <p><b>CAAP: Less Than Significant Impact.</b> Implementation of the proposed CAAP does not constitute or entitle any physical development of any buildings or structures, nor would it grant any entitlements for development that would result in changes to solid waste impacts. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed CAAP would not in itself grant any entitlements for development that would result in changes to solid waste. One of the intentions of the CAAP is to reduce GHG emissions associated with solid waste generation, and the CAAP includes Quantified CAAP Actions for Waste that would increase solid waste diversion, reducing the amount of solid waste that would be in landfills through actions that ensure compliance with state law requirements for multifamily and commercial property recycling programs (W-1), and required expanded organic waste collection and processing (W-2, W-3, and W-4). Implementation of the CAAP would reduce solid waste generation in the City, and impacts would be beneficial. Any new facilities needed to support increased waste diversion (such as transfer facilities or composting facilities) would be reviewed under CEQA and required to comply with existing regulations for the handling of solid waste, including the applicable permitting requirements of CalRecycle. Therefore, the proposed project would result in less than significant impacts related to the generation of solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure. No mitigation is required.</p> <p><b>Safety Element Update: No Impact.</b> Text changes to the Safety Element would not constitute approval of or result in any physical development that would result in impacts related to solid waste. No mitigation is required.</p>	No mitigation is required.	Less Than Significant Impact.

**Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measures, and Levels of Significance**

Potential Environmental Impacts	Project Design Features and Mitigation Measures	Level of Significance After Mitigation
<p><b>Cumulative Utilities and Service Systems Impacts.</b></p> <p><b>Less Than Significant Impact.</b> Implementation of the proposed CAAP does not constitute or entitle any physical development of any buildings or structures, nor would it grant any entitlements for development. The proposed CAAP would be consistent with the adopted LUE, and thus any service demands from future new structures would not result in additional impacts beyond what was anticipated in the 2019 Certified Program EIR under the General Plan buildout (2040). Additionally, implementation of the CAAP would not result in a population increase greater than projected for the buildout of the adopted LUE because the CAAP would not change local land use plans, and the additional facilities supported by the CAAP would result in only minor employment increases and minimal, if any, population growth. Therefore, the proposed project’s contribution to impacts on utilities and service systems would not be cumulatively considerable, and no mitigation would be required.</p> <p>Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant utilities or service systems impacts. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less Than Significant Impact.</p>

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## 2.0 INTRODUCTION

### 2.1 OVERVIEW

This Draft Subsequent Environmental Impact Report (SEIR) has been prepared to evaluate environmental impacts associated with the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update (proposed project) in the City of Long Beach (City). The City is the “public agency which has the principal responsibility for carrying out or approving the project” and, as such, is the “Lead Agency” for this project under the California Environmental Quality Act of 1970 (CEQA) (*State CEQA Guidelines for Implementation of CEQA* Section 15367). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action. This Draft SEIR is intended to serve as an informational document to be considered by the City and the Responsible Agencies during deliberations on the proposed project. The anticipated project approvals associated with the proposed project are described in Chapter 3.0, Project Description.

The City of Long Beach, as the Lead Agency, determined that the proposed project may have a significant effect on the environment and that an SEIR would be required to more fully evaluate potential adverse environmental impacts that may result from development of the project. As a result, this Draft SEIR has been prepared in accordance with CEQA, as amended (Public Resources Code [PRC] Section 21000, et seq.), and the *CEQA Guidelines for Implementation of CEQA* (California Code of Regulations [CCR], Title 14, Section 15000, et seq.). This Draft SEIR also complies with the procedures established by the City for the implementation of CEQA.

Questions regarding the preparation of this Draft SEIR and the City’s review of the proposed project should be referred to the following:

Alison Spindler-Ruiz, Advance Planning Officer  
City of Long Beach Development Services, Planning Bureau  
411 West Ocean Boulevard, Third Floor  
Long Beach, CA 90802  
Phone: (562) 570-6946  
Email: LBDS-EIR-Comments@longbeach.gov

### 2.2 GENERAL BACKGROUND

The General Plan Land Use and Urban Design Elements Project (General Plan LUE/UDE Project) was approved in 2019 and provided an update to the City’s General Plan intended to guide growth and future development through the horizon year 2040. The General Plan Land Use and Urban Design Elements, replaced the previous 1989 Land Use Element (LUE) and the 1975 Scenic Routes Element (SRE), respectively. The City, as Lead Agency, prepared a Recirculated Draft EIR<sup>1</sup> for the General Plan LUE/UDE Project in 2019. The EIR found that implementation of the project would result in

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<sup>1</sup> Prior to the Recirculated Draft EIR, a Draft EIR was prepared and circulated from September 1, 2016, to November 18, 2016.

significant and unavoidable adverse impacts related to air quality, global climate change, noise, and transportation. With the exception of air quality, global climate change, noise, and transportation impacts, all other potentially significant impacts were effectively mitigated to a less than significant level. The City Council certified the EIR in December 2019, adopted the Mitigation Monitoring and Reporting Program (MMRP), and approved the project. The proposed CAAP is a required mitigation measure of the City's General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR), which was certified in December 2019.

### 2.2.1 Authority

The California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 21000 et seq., requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. A "discretionary approval" is an action taken by a government agency that calls for the exercise of judgment in deciding whether to approve or how to carry out a project. An SEIR is a public document designed to provide the public, local, and state governmental agency decision-makers with an analysis of potential environmental consequences to support informed decision making.

Pursuant to CEQA Section 21067, the lead agency is "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." The City of Long Beach has the principal responsibility for approval of the proposed project. For this reason, the City is the CEQA Lead Agency for this project.

### 2.2.2 Subsequent EIR

Section 15162 of the *State Guidelines for the Implementation of CEQA of 1970 (State CEQA Guidelines)* provides that when an EIR has been certified for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, that one or more of the following things have occurred:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified, shows any of the following:
  - (A) The project will have one or more significant effects not discussed in the previous EIR.

- (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR.
- (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative.
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The City of Long Beach, as Lead Agency under CEQA, has determined that preparation of an SEIR (CCR, Title 14, Division 6, Chapter 3, Article 11; *State CEQA Guidelines* Section 15163) is appropriate. This SEIR addresses the environmental effects associated with the implementation of the proposed CAAP and Safety Element Update project. As such, this SEIR need only contain information necessary to make the previous City's General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) adequate.

This SEIR has been prepared in accordance with the requirements of:

- CEQA of 1970, as amended; and
- *State CEQA Guidelines*, Section 15000 et seq. of Title 14 CCR.

The overall purpose of this SEIR is to inform the Lead Agency, responsible agencies, decision-makers, and the general public of the environmental effects of the proposed CAAP and Safety Element Update. This SEIR addresses the potential environmental effects of the project, including effects that may be significant and adverse, evaluates a number of alternatives to the project, and identifies mitigation measures to reduce or avoid adverse effects.

## **2.2.3 Previous Environmental Documents**

### **2.2.3.1 2019 Certified Program EIR**

This Draft SEIR is being prepared as a Subsequent EIR to the 2019 Certified Program EIR because the CAAP was a required mitigation measure (GHG-1) in that document. The Safety Element text updates are consistent with California Government Code Section 65302(g), and are being included in this SEIR because they recognize climate impacts and provide climate adaptation and resilience strategies into the City's General Plan in line with the CAAP.

Consistent with Section 15063 of the *State CEQA Guidelines*, an Initial Study (LSA 2015) was prepared for the 2019 Certified Program EIR. The analysis contained in the Initial Study (IS) found that the General Plan LUE/UDE Project may have a significant effect on the environment unless mitigation is included to lessen or avoid the environmental effects of the project. The City staff determined that a Program EIR was the appropriate environmental document to be prepared for the General Plan LUE/UDE Project (see below, for more information regarding the decision to

prepare a Program EIR). The City, as the Lead Agency, originally prepared the IS and issued a Notice of Preparation (NOP) for an EIR for the original project on May 18, 2015, which was distributed via the State Clearinghouse (SCH). The SCH issued a project number for the EIR (SCH No. 2015051054). The primary purpose of preparing the IS was to scope the environmental analysis and evaluate potential environmental impacts that may result from project approval. The IS was also used to scope out environmental issues that were determined to be “less than significant” or “no impact,” including agricultural resources, biological resources, cultural and tribal cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, recreation, and wildfire. In accordance with the *State CEQA Guidelines*, Section 15082, the NOP was circulated to responsible agencies and individuals for a period of 30 days, during which time written comments were solicited pertaining to environmental issues and topics that the EIR should evaluate.

Preparation of the EIR for the General Plan LUE/UDE Project began in June 2015 to fully evaluate the potential adverse environmental impacts that could result from the project. The Draft EIR was circulated for public review for an extended period of 78 days (33 days longer than the required 45-day public review period), from September 1, 2016, to November 18, 2016.

Due to extensive public input provided to the City in the form of written comments on the Draft EIR, oral testimony at public hearings and community meetings, and direction from the City Council to revise the PlaceTypes Maps in the LUE, the City subsequently revised the project in March 2018. The project changes were determined to constitute potentially significant new information, thereby requiring recirculation of the Draft EIR pursuant to *State CEQA Guidelines*, Section 15088.5. Changes to the project were made in response to public input received on the originally proposed project. As such, a Recirculated Draft EIR was prepared to evaluate environmental impacts that could result from implementation of the project. The Recirculated Draft EIR was circulated for public review for an extended period of 60 days (15 days longer than the required 45-day public review period), from June 18, 2019, to August 16, 2019. The Recirculated Draft EIR found that implementation of the project would result in significant and unavoidable adverse impacts related to air quality, global climate change, noise, and transportation. With the exception of air quality, global climate change, noise, and transportation impacts, all other potentially significant impacts were effectively mitigated to a less than significant level. The City Council certified the Recirculated Draft EIR in December 2019, adopted the Mitigation Monitoring and Reporting Program (MMRP), and approved the project.

The 2019 Certified EIR serves as a Program EIR pursuant to the *State CEQA Guidelines*, Section 15168. The use of a Program EIR provides an occasion for a more exhaustive consideration of effects and alternatives than otherwise would be practical under a Project EIR. However, subsequent activities occurring as a result of program/project approval and certification of a Program EIR must be further evaluated in light of the Program EIR to determine whether or not an additional environmental document must be prepared. If an agency finds that no new effects could occur and that no new mitigation would be required, then the agency can determine that subsequent activities are covered under the Program EIR and no further environmental documentation would be required. Conversely, an agency may determine that future projects could require the preparation of a new IS, Mitigated Negative Declaration (MND), or new EIR. If new

environmental documentation is required, a Program EIR can be used to focus the scope of the subsequent environmental document (*State CEQA Guidelines*, Section 15168).

## 2.3 ENVIRONMENTAL REVIEW PROCESS

The California Environmental Quality Act (CEQA) Public Resources Code (PRC) Section 21000, et seq., requires that a public agency prepare an EIR when the public agency finds substantial evidence that the project may have a significant effect on the environment (PRC Section 21080 (d)). The basic purposes of CEQA are to:

1. Inform governmental decision makers and the public about the potential significant environmental effects of proposed activities;
2. Identify the ways that environmental damage can be avoided or significantly reduced;
3. Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
4. Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

In compliance with the *State CEQA Guidelines*, the City has taken steps to maximize opportunities for the public and other public agencies to participate in the environmental review process. The City conducted the scoping process and held a public scoping meeting, issued an NOP for the proposed project, and determined that an SEIR was required to evaluate the potentially significant environmental effects of the proposed project and related actions. Further, this Draft SEIR is subject to public review and comment. These topics related to the environmental review process are described in further detail below.

### 2.3.1 Scoping Meeting Summary

The City held a public scoping meeting to present the project and to solicit input from interested individuals regarding environmental issues that should be addressed in the Draft SEIR. The scoping meeting was held on September 1, 2021, via video conference. The following issues were raised during the scoping process, which includes the scoping meeting and the NOP responses:

- Concerns that the project would have direct impacts related to biological resources from the loss of sensitive habitat and open space from introduction of non-native, invasive plant species through landscaping, fuel modification areas, and grading.
- Concerns related to potential impacts to specific biological resources including Monarch butterfly habitat, jurisdictional waters and associated vegetation, significant ecological areas (SEAs), nesting birds, and bats.
- Recommendations that this Draft SEIR consider all facilities maintained by the Los Angeles County Sanitation District have the capacity consistent with the approved growth identified by the Southern California Association Governments (SCAG) in their regional growth forecast.

- Recommendations that the CAAP and Safety Element Update are analyzed for consistency with SCAG’s adopted 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal.
- Recommendations to include Environmental Justice related goals and policies per Senate Bill (SB) 1000.
- Recommendation to review Caltrans policies, plans, and guidance strategies related to climate change impacts.
- Recommendation to engage in consultation with Native American tribes that are tribally and culturally affiliated with the geographic area of the proposed project pursuant to the requirements of Assembly Bill (AB) 52 and SB 18.

Please note that these are not exhaustive lists of areas of controversy, but rather key issues that were raised during the scoping process. The Draft SEIR addresses each of these areas of concern or controversy in detail, examines project-related and cumulative environmental impacts, identifies significant adverse environmental impacts, and proposes mitigation measures designed to reduce or eliminate potentially significant impacts. Appendix A includes the NOP and copies of written comments received in response to the NOP. In addition, it should be noted that while the proposed project includes an update to the General Plan Safety Element, the proposed CAAP is an implementing plan of the General Plan but is not in itself a stand-alone General Plan Element. Therefore, the requirements of SB 1000 do not apply to the proposed project. However, both the City’s General Plan and the CAAP contain environmental justice goals, policies, and objectives integrated throughout the General Plan elements.

### 2.3.2 Draft SEIR

This Draft SEIR is being distributed to numerous public agencies and other interested parties for review and comment. The Draft SEIR is also available at the locations listed below. It should be noted that these locations may not be open to the public due to the ongoing COVID-19 public health concerns. Copies of the Draft SEIR are also available on the City’s website, which is provided below.

City of Long Beach Development Services, Planning Bureau  
411 West Ocean Boulevard, Third Floor  
Long Beach, CA 90802  
Hours: Monday through Friday, 8:00 a.m. to 4:00 p.m.  
Saturday and Sunday, Closed

Billie Jean King Main Library  
200 West Broadway  
Long Beach, CA 90802  
Hours: Sunday and Monday, Closed  
Tuesday, 12:00 p.m. to 8:00 p.m.  
Wednesday, 12:00 p.m. to 6:00 p.m.  
Thursday, 12:00 p.m. to 7:00 p.m.  
Friday and Saturday, 10:00 a.m. to 5:00 p.m.

The Draft SEIR is also available on the City's website:

<http://www.longbeach.gov/lbds/planning/environmental/reports/>

All comments received from agencies and individuals on the Draft SEIR will be accepted during the public review period, which will not be less than 45 days, in compliance with CEQA. All comments on the Draft SEIR should be sent to the following City contact person:

Alison Spindler-Ruiz, Advance Planning Officer  
City of Long Beach Development Services, Planning Bureau  
411 West Ocean Boulevard, Third Floor  
Long Beach, CA 90802  
Phone: (562) 570-6368  
Email: Alison.Spindler-Ruiz@longbeach.gov

Comments will only be accepted in written form via e-mail and/or hardcopy letter delivered to the above-referenced email and mailing addresses, respectively. After the public review and comment period, written responses to all comments received pertaining to environmental issues will be prepared as part of the Final SEIR. As required by CEQA, responses to comments submitted by responsible public agencies will be distributed to those agencies for review at least 10 days (in accordance with Section 15088 of the *State CEQA Guidelines*) prior to consideration and approval of the Final SEIR. Upon completion of the Final SEIR and other required documentation, the City Council may certify the Final SEIR, adopt findings relative to the proposed project's environmental effects after implementation of mitigation measures, and approve or deny the project.

## 2.4 SCOPE OF THIS DRAFT SEIR

This Draft SEIR has been prepared to evaluate environmental impacts that may result from implementation of the proposed project. As the Lead Agency, the City has the authority for preparation of this Draft SEIR and, after the comment/response process, certification of the Final SEIR, and approval of the proposed project as described in this Draft SEIR.

The City has the authority to make decisions on discretionary actions relating to the proposed project. As previously stated, this Draft SEIR is intended to serve as an informational document to be considered by the City during deliberations on the proposed project. This Draft SEIR evaluates and mitigates a reasonable worst-case scenario of potential impacts associated with the proposed project.

As previously stated, the City is the Lead Agency for the proposed project under CEQA (*State CEQA Guidelines* Section 15367). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary actions. This Draft SEIR provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts of the proposed project. The purpose of the public review of the Draft SEIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. Section 15151 of the *State CEQA Guidelines* states the following regarding standards from which adequacy is judged:

“An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure.”

Under CEQA (PRC Section 21002.1[a]):

“The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.”

As previously discussed in Chapter 1.0, Executive Summary, an SEIR is a comprehensive form of environmental documentation identified in CEQA and the *State CEQA Guidelines* and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that have the potential to result in significant, adverse environmental impacts.

## 2.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

As required by *State CEQA Guidelines* Section 15128, this Draft SEIR identifies the potential effects of the proposed project that were determined not to be significant and adverse, and therefore, not addressed in the Draft SEIR. The proposed project includes adoption of the proposed CAAP and text amendments to the General Plan Safety Element. Adoption of the CAAP also includes the adoption of a Consistency Checklist which would be utilized by future discretionary projects to implement required and applicable CAAP Actions. This Draft SEIR analyzes the potential impacts of the Safety Element text updates and adoption of the CAAP, including potential impacts of CAAP Actions on the City related to Aesthetics, Air Quality, Energy, Greenhouse Gas Emissions, Land Use and Planning, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, and Utilities and Service Systems. The proposed CAAP Actions can be analyzed for how these types of actions may be consistent with adopted City policies and their overall intent to reduce greenhouse gas (GHG) emissions to meet the City’s GHG reduction target, as well as to lessen the impacts of climate change on the City. However, because the project does not include any physical land use changes or specific physical improvements, environmental impacts related to environmental topics that are directly tied to physical land changes including Agriculture and Forestry Resources, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Mineral Resources, and Wildfire are not anticipated to be significant or potentially significant requiring a detailed analysis. These issues are briefly discussed below along with the substantiation for why they were determined not to be significant.

### 2.5.1 Agricultural and Forestry Resources

The planning area is almost entirely developed and is not used for agricultural or forestry purposes. No properties within the planning area are designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance nor are there areas zoned for agricultural or forestry uses. Further, there are no areas protected by a Williamson Act contract. As such, implementation of the proposed project would not result in environmental changes that could result in the conversion of farmland to non-agricultural use or the conversion of forest land to non-forest use. Furthermore, the proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and do not include any physical improvements or development that would result in impacts to agricultural and forestry resources. Therefore, this issue is not evaluated further in this Draft SEIR.

### 2.5.2 Biological Resources

In its existing setting, the planning area is almost entirely developed and is located in an urban area of Los Angeles County. These urban areas do not contain mapped habitat for any sensitive biological species as identified on local/regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS). Although the majority of the planning area is urban in nature, the City contains a number of open space areas (e.g., El Dorado Regional Park, the Los Angeles and San Gabriel Rivers, Los Cerritos Wetlands, beaches along the Pacific Ocean shoreline, rights-of-way, marinas, bays, riparian habitat, and wetlands) that have the potential to support sensitive biological resources. Alamitos Bay is also located within the City and is a designated Significant Ecological Area (SEA) by the County of Los Angeles.<sup>2</sup> However, the proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in impacts to biological resources. Existing habitat and species would not be affected as a result of implementation of the proposed project. In addition, the CAAP Actions focus on measures that would apply to future discretionary projects as contemplated with the adopted LUE, which anticipates future development concentrated along transit corridors throughout the City and on parcels that are currently paved and/or developed. As such, measures to support the CAAP Actions implemented with future discretionary projects would be located in existing urban areas and would not result in the loss of open space or sensitive habitat. Further, these future discretionary projects would require project-level CEQA review as there is not sufficient information related to the exact location, project type, and timing of the Adaptation Actions in the CAAP; future discretionary projects to implement CAAP Adaptation Actions would be subject to project-level CEQA review.

According to the National Wetlands Inventory managed by the USFWS, although the majority of the planning area is urban in nature, the planning area does contain riparian habitat that has the

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<sup>2</sup> Los Angeles County. 2019. Significant Ecological Areas and Coastal Resource Areas Policy Map. Website: <https://planning.lacounty.gov/site/sea/maps/> (accessed September 27, 2021).

potential to support sensitive biological resources; the planning area also contains State and federally protected wetlands that have the potential to support sensitive biological resources.<sup>3</sup> As stated previously, the proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in impacts to biological resources. In addition, the CAAP Actions focus on actions that would apply to future discretionary projects as contemplated with the adopted LUE, which anticipates future development concentrated along transit corridors throughout the City and on parcels that are currently paved and/or developed. As such, measures to support the CAAP Actions implemented with future discretionary projects would be located in existing urban areas and would not result in impacts to jurisdictional wetlands, waters, or associated vegetation. Further, these future discretionary projects would require project-level CEQA review as there is not sufficient information related to the exact location, project type, and timing of the Adaptation Actions in the CAAP; future discretionary projects to implement CAAP Adaptation Actions would be subject to project-level CEQA review.

The Migratory Bird Treaty Act (MBTA) and California Fish and Game Code 3503 protect most native bird species from destruction or harm. This protection extends to individuals, as well as any part, nest, or eggs of any bird listed as migratory. Most native North American bird species are on the MBTA list. Implementation of the proposed project would not result in impacts related to interference with the movement of species within wildlife corridors. As stated previously, the proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in impacts to biological resources.

The City of Long Beach Municipal Code (Chapter 14.28) regulates the care and removal of trees on public property and is intended to preserve and protect the community's urban forest and to promote the health and safety of City trees. The City's Municipal Code requires that a municipal permit from the City of Long Beach Director of Public Works be obtained prior to the removal of trees on City-owned property. The City's Tree Maintenance Policy also requires a 1:1 replacement ratio and payment of a fee that is equivalent to a City-approved 15-gallon tree.<sup>4</sup> Per Section 21.42.030 of the City's Municipal Code, a Landscape Document Package would be required to be reviewed and approved by the City prior to issuance of building permits for future discretionary projects, and the use of invasive plant species is specifically prohibited within the California Coastal Zone. Other requirements of the City's landscaping standards also include the removal of dead or diseased trees. The City would also be responsible for review and approval of the landscape plans

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<sup>3</sup> United States Fish and Wildlife Service (USFWS). National Wetlands Inventory. Website: <https://www.fws.gov/wetlands/data/mapper.html> (accessed August 5, 2021).

<sup>4</sup> City of Long Beach. 2006. Tree Maintenance Policy. Website: <https://www.longbeach.gov/globalassets/sustainability/media-library/documents/nature-initiatives/urban-nature/tree-maintenance-policy> (accessed September 27, 2021).

for future discretionary projects to ensure no loss of sensitive habitat or open space would occur as a result of the introduction of invasive species and pest management. Implementation of the proposed project would not conflict with the City's tree preservation policies. Furthermore, the proposed CAAP includes climate Adaptation Actions for future plans and projects, including tree plantings in communities most vulnerable to higher temperatures. As stated previously, the proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in impacts to biological resources.

There are no adopted Habitat Conservation Plans (HCP), Natural Communities Conservation Plans (NCCP), or other similar plans within the City.

For the reasons stated above, the proposed project would not result in significant impacts to biological resources. Any future discretionary projects within the City would be evaluated individually in compliance with CEQA, and project-specific mitigation would be proposed as needed. Therefore, this issue is not evaluated further in this Draft SEIR.

### 2.5.3 Cultural Resources

Implementation of the proposed project would not cause a substantial change in the significance of a historical, archaeological, or tribal cultural resource.

CEQA defines a "historical resource" as a resource that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register of Historical Resources; (2) listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by a project's Lead Agency (PRC Section 21084.1 and *State CEQA Guidelines* Section 15064.5[a]). The proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in impacts to historical resources.

The City's adopted General Plan Land Use Element aims to minimize potential impacts to unknown archaeological resources through compliance with applicable federal, State, and local guidelines. In its existing setting, the planning area is almost entirely developed and is located in an urban area of Los Angeles County. Consequently, much of the planning area has been previously disturbed as a result of past construction activities in the City. As stated previously, the proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in impacts to archaeological resources. Similarly, the proposed project would not disturb any human remains.

For the reasons stated above, the proposed project would not result in significant impacts to cultural resources. Any future discretionary projects within the City would be evaluated individually,

in compliance with CEQA, and project-specific mitigation would be proposed as needed. Therefore, this issue is not evaluated further in this Draft SEIR.

#### **2.5.4 Geology and Soils**

Given the City's location in the seismically active area of Southern California, portions of the planning area are located within a Fault Zone, as designated by the California Department of Conservation (DOC) and the United States Geological Survey (USGS). According to the City's General Plan Seismic Safety Element (1988), the most prominent fault zone in the City is the Newport-Inglewood Fault Zone, which transverses the City from the northwest to the southeast. The proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development. Future individual projects subject to discretionary approval would be required to be consistent with City requirements established in the Safety Element and would be required to comply with current applicable building codes. As such, implementation of the proposed project would not expose people or structures to substantial adverse effects related to the risk of loss, injury, or death involving the rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related failure (e.g., liquefaction or landslides).

As stated previously, the proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in impacts related to substantial soil erosion, unstable soils, expansive soils, or soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. Compliance with applicable building codes in effect at the time future discretionary projects are proposed and preparation of site-specific geology and soils engineering studies would ensure that future projects would not result in impacts related to substantial soil erosion, unstable soils, expansive soils, or soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

In its existing setting, the planning area is almost entirely developed and is located in an urban area of Los Angeles County. Consequently, much of the planning area has been previously disturbed as a result of past construction activities in the City. As stated previously, the proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and do not include any physical improvements or development that would impact paleontological resources. As a result of implementation of the proposed project, the existing paleontological setting would remain unchanged.

For the reasons stated above, the proposed project would not result in significant impacts to geology and soils. Any future discretionary projects within the City would be evaluated individually, in compliance with CEQA, and project-specific mitigation would be proposed as needed. Therefore, this issue is not evaluated further in this Draft SEIR.

### 2.5.5 Hazards and Hazardous Materials

Hazardous materials are chemicals that could potentially cause harm during an accidental release or mishap, and are defined as being toxic, corrosive, flammable, reactive, and an irritant or strong sensitizer.<sup>5</sup> Hazardous substances include all chemicals regulated under the United States Department of Transportation’s “hazardous materials” regulations and the United States Environmental Protection Agency’s (EPA) “hazardous waste” regulations. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. The probable frequency and severity of consequences from the routine transport, use, or disposal of hazardous materials is affected by the type of substance, the quantity used or managed, and the nature of the activities and operations. The proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would involve the transport, use, or disposal of hazardous materials; create a hazard to the public or the environment through the release of hazardous materials; emit hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of any school; or result in a significant impact related to a known hazardous materials site pursuant to Government Code Section 65965.5. Therefore, the proposed project would not create a significant hazard to the public or the environment; interfere with air traffic patterns, conflict with established Federal Aviation Administration (FAA) flight protection zones, or conflict with building height standards established by the FAA for structures on and adjacent to the Long Beach Airport; interfere with an adopted emergency response plan or emergency evacuation plan; or expose people or structures to a significant risk of loss, injury, or death from wildland fires. Any future discretionary projects within the City would be evaluated individually, in compliance with CEQA, and project-specific mitigation would be proposed as needed.

Individual projects subject to discretionary approval would also be required to comply with all policies set forth in the City’s Emergency Operations Plan and the updated General Plan Safety Element. The proposed project includes text amendments to the Safety Element to consolidate the current Safety and Public Safety Elements and to recognize climate impacts and incorporate climate adaptation and resiliency strategies into the General Plan. Furthermore, these amendments would implement the requirements of SB99 (2019), which requires the identification of residential developments in any identified hazard areas that do not have at least two emergency evacuation routes and AB 747 (2019), which requires the Safety Element to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. Therefore, this issue is not evaluated further in this Draft SEIR.

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<sup>5</sup> A “sensitizer” is a chemical that can cause a substantial proportion of people or animals to develop an allergic reaction in normal tissue after repeated exposure to a chemical (U.S. Department of Labor, 2017. Appendix A TO Sections 1910.1200—Health Hazard Criteria, Section A.4, Respiratory or Skin Sensitization. Website: <https://www.osha.gov/dsg/hazcom/hazcom-appendix-a.html> [accessed August 5, 2021]).

### 2.5.6 Hydrology and Water Quality

According to the *Long Beach Water 2015 Urban Water Management Plan* (adopted June 2, 2016), groundwater supply for the City is considered to be very reliable, even during multi-year droughts because extractions are strictly limited and because multiple forms of replenishment exist (e.g., recycled water is mixed with imported water and/or natural runoff and is allowed to percolate in the groundwater basin, and San Gabriel River stream flows are used to replenish the groundwater basin, etc.). However, depending on the depth to groundwater and the depth of excavation, groundwater may be encountered during construction of future projects, and groundwater dewatering may be required. Future projects requiring groundwater dewatering activities during construction would be required to obtain coverage under and comply with the provisions of the Groundwater Discharge Permit. Project applicants would be required to provide the Waste Discharge Identification Number to the City to demonstrate proof of coverage under the Groundwater Discharge Permit. Pursuant to the requirements of the Groundwater Discharge Permit, dewatered groundwater would be tested and treated (as necessary) prior to release into surface waters so violations of water quality standards or waste discharge requirements would not occur. In addition, in most cases, the duration of groundwater dewatering and the volume of groundwater extracted during construction would be small in volume compared to the overall size of the groundwater basin and would not result in the substantial depletion of groundwater supplies or interfere with groundwater recharge.

As stated previously, the proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in impacts related to water quality, water supplies, or drainage patterns. In addition, the CAAP Actions focus on measures that would apply to future discretionary projects as contemplated in the adopted LUE, which anticipates future development concentrated along transit corridors throughout the City and on parcels that are currently paved and/or developed. As such, measures to support the CAAP Actions implemented with future discretionary projects would be located in existing urban areas and would not result in impacts associated with the alteration of a stream or river or in the addition of substantial amounts of impervious surfaces. In addition, future applicants of future discretionary projects would be subject to all requirements for submitting a Standard Urban Storm Water Mitigation Plan (SUSMP) and a Low Impact Development (LID) Plan. These plans would identify best management practices (BMPs) to be implemented during operation to control stormwater pollutants and runoff to minimize impacts related to the violation of water quality standards or waste discharge requirements and related to the alteration of existing drainage patterns. Further, because a majority of future discretionary projects that would implement CAAP Actions would occur on already paved and developed sites, operational BMPs would be implemented where treatment BMPs likely currently do not exist, which would improve stormwater quality discharges from those sites. Therefore, adoption of the proposed CAAP and Safety Element Update would not result in impacts associated with the violation of water quality standards and/or waste discharge requirements or with the alteration of a stream or river or drainage patterns.

As stated above, groundwater supply for the City is considered to be very reliable, even during multi-year droughts because extractions are strictly limited and because multiple forms of replenishment exist. Because the CAAP Actions are considered at a program level and for how they

would apply to future discretionary projects anticipated by the General Plan LUE, which focuses on infill development projects on parcels that are currently paved and/or developed, the proposed CAAP Actions would not substantially increase impervious surface areas in a manner that would substantially decrease infiltration. Therefore, adoption of the proposed CAAP and Safety Element Update would not result in the substantial depletion of groundwater supplies or interfere with groundwater recharge.

According to Figure LU-1 in the General Plan LUE, most of the City is located in areas that are not within Federal Emergency Management Agency (FEMA) 100-year flood zones, with the exception of areas near the Port of Long Beach, Downtown, and Naples Island. As such, future applicants of discretionary projects would be required to obtain development permits from the City's Floodplain Administrator for future projects proposed in FEMA special flood hazard areas to minimize flooding impacts to people and structures. Therefore, adoption of the proposed CAAP and Safety Element Update, which do not include any physical development, would not result in impacts related to flooding.

According to the City's Seismic Safety Element (1988) and the California Emergency Management Agency (Cal EMA), the majority of the City is not located within a zone of seiche areas. Similarly, the majority of the City is located outside of the Tsunami Inundation Zone, with the exception of the Port of Long Beach and in areas along the coastline and the Los Angeles and San Gabriel Rivers. However, in the event of a tsunami, the City has established response procedures as described in the City of Long Beach *Hazard Mitigation Plan* (2017). Therefore, adoption of the proposed CAAP and Safety Element Update, which do not include any physical development, would not result in flood hazards associated with inundation as a result of a tsunami or seiche. Therefore, this issue is not evaluated further in this Draft SEIR.

While the proposed project includes text amendments to the Safety Element, these amendments are to recognize climate impacts and incorporate climate adaptation and resiliency strategies into the General Plan. Therefore, this issue is not evaluated further in this Draft SEIR.

The proposed text amendments to the Safety Element include a discussion of flooding related specifically to sea level rise and climate change. As this discussion of flooding is related specifically to climate change impacts as a result of greenhouse gas emissions, this discussion is contained in Section 4.4, Greenhouse Gas Emissions, of this Draft SEIR.

### **2.5.7 Mineral Resources**

According to the City's General Plan Conservation Element (1973), the mineral resources within the City have historically consisted of oil and natural gas. However, over the last century, oil and natural gas extractions have diminished as the resources have become increasingly depleted. Although extraction operations continue, they are on a reduced scale as compared to past historic levels. The proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in the loss of availability of a known mineral resource of value. As a result of project implementation, availability of existing mineral resources and locally important mineral resource

recovery sites would remain unchanged. Any future discretionary projects within the City would be evaluated individually in compliance with CEQA, and project-specific mitigation would be proposed as needed. Therefore, this issue is not evaluated further in this Draft SEIR.

### **2.5.8 Wildfire**

In its existing setting, the planning area is almost entirely developed and is located in an urban area of Los Angeles County. The California Department of Forestry and Fire Protection (CAL FIRE) publishes maps that predict the threat of fire in individual counties in the State. Local responsibility areas and State or federal responsibility areas are classified as either very high fire hazard severity zones (VHFHSZ) or non-VHFHSZ based on factors including fuel availability, topography, fire history, and climate. The planning area is not located in or near a State Responsibility Area or Local Responsibility and does not include land classified as VHFHSZ as defined by CAL FIRE.<sup>6</sup> The proposed project involves the adoption of the proposed CAAP and text amendments to the General Plan Safety Element, which are considered policy/planning actions and adoption of the proposed project does not constitute approval for any physical improvements or development that would result in exacerbated wildfire risk. Any future discretionary projects within the City would be evaluated individually in compliance with CEQA, and project-specific mitigation would be proposed as needed. Therefore, this issue is not evaluated further in this Draft SEIR.

## **2.6 FORMAT OF THE EIR**

Pursuant to *State CEQA Guidelines*, Section 15120(c), this Draft SEIR contains the information and analysis required by *State CEQA Guidelines*, Sections 15122 through 15131. Each of the required elements is covered in one of the Draft SEIR chapters described below.

### **Chapter 1.0: Executive Summary**

Chapter 1.0 contains the Executive Summary of the Draft SEIR, listing all significant project impacts and the level of significance of each impact. The summary is presented in a tabular format.

### **Chapter 2.0: Introduction**

Chapter 2.0 contains a discussion of the purpose and intended use of the Draft SEIR. A summary discussion of effects found not to be significant and, therefore, not included in the Draft SEIR analysis is also included in this chapter.

### **Chapter 3.0: Project Description**

Chapter 3.0 includes a discussion of the project's geographical setting, the history of the planning area, the project's goals, objectives, characteristics, and components, and the anticipated discretionary action for the project.

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<sup>6</sup> California Department of Forestry and Fire Protection (CAL FIRE). 2021. Fire Hazard Severity Zones. Website: <https://egis.fire.ca.gov/FHSZ/> (accessed September 27, 2021).

## **Chapter 4.0: Environmental Analysis, Impacts, and Mitigation Measures**

Chapter 4.0 includes an analysis of the proposed project’s environmental impacts. It is organized into the following topical sections: aesthetics, air quality, energy, greenhouse gas emissions, land use and planning, noise, population and housing, public services, recreation, transportation/traffic, tribal cultural resources, and utilities and service systems. The environmental setting discussions describe the “existing conditions” of the environment in the planning area and in the vicinity of the site as they pertain to the environmental issues being analyzed (Section 15125 of the *State CEQA Guidelines*).

The project impact discussions identify and focus on the significant environmental effects of the proposed project. The direct and indirect significant effects of the proposed project on the environment are identified and described, giving due consideration to both the short-term and long-term effects, as necessary (Section 15126.2[a] of the *State CEQA Guidelines*).

Chapter 4.0 also includes a discussion of the cumulative effects of the proposed project within the analysis of each environmental topic when considered in combination with other projects, causing related impacts as required by Section 15130 of the *State CEQA Guidelines*. Cumulative impacts are based on the General Plan buildout scenario.

## **Chapter 5.0: Alternatives to the Proposed Project**

In accordance with *State CEQA Guidelines* Section 15126.6, the alternatives discussion in Chapter 5.0 describes a reasonable range of alternatives that could feasibly attain the basic objectives of the project and that are capable of eliminating any significant adverse environmental effects or reducing them to a less than significant level. The alternative analyzed in Chapter 5.0 includes the No Project Alternative. Other alternatives commonly considered, including the Reduced Project Alternative and the Alternate Location Alternative, are not applicable due to the nature of the proposed project being a policy/planning action that does not include or facilitate any physical improvements or development. The substantive reasons for the elimination of such alternatives are provided in Chapter 5.0. The environmentally superior alternative is also identified.

## **Chapter 6.0: Long-Term Implications of the Project**

Chapter 6.0 includes CEQA-mandated discussions required by Section 15126.2 of the *State CEQA Guidelines* regarding: (a) significant irreversible environmental changes that would result from implementation of the proposed project, (b) significant adverse environmental impacts for which either no mitigation or only partial mitigation is feasible, and (c) growth-inducing impacts of the proposed project.

## **Chapter 7.0: List of Preparers and Persons Consulted**

Chapter 7.0 provides a list of the preparers of the Draft SEIR, the CAAP, and the Safety Element Update, as well as persons consulted during preparation of the Draft SEIR.

## **Chapter 8.0: References**

Chapter 8.0 provides the references cited in this Draft SEIR.

## 2.7 INCORPORATION BY REFERENCE

As permitted in Section 15150 of the *State CEQA Guidelines*, an EIR may reference all or portions of another document that is a matter of public record or is generally available to the public. Information from the documents that have been incorporated by reference has been briefly summarized in the appropriate sections of this Draft SEIR, along with a description of how the public may obtain and review these documents. These documents include:

- City of Long Beach General Plan Elements (as amended) (website: <http://www.longbeach.gov/lbds/planning/advance/general-plan/>)
- City of Long Beach General Plan Land Use and Urban Design Elements Environmental Impact Report (2019 Certified Program EIR) (website: <https://www.longbeach.gov/lbds/planning/environmental/reports/>)
- City of Long Beach Municipal Code and other titles referenced herein (website: [https://www.municode.com/library/ca/long\\_beach/codes/municipal\\_code?nodeId=16115](https://www.municode.com/library/ca/long_beach/codes/municipal_code?nodeId=16115))
- Proposed Long Beach Climate Action and Adaptation Plan (website: <https://www.longbeach.gov/lbds/planning/caap/>)
- Proposed Long Beach General Plan Safety Element Update (March 2022) (Appendix B) (website: <http://www.longbeach.gov/lbds/planning/advance/general-plan/>)

Documents that are incorporated by reference are available for review at the website links noted above and at the City of Long Beach, Department of Development Services, 411 West Ocean Boulevard, 3<sup>rd</sup> Floor, Long Beach, California 90802.

### 3.0 PROJECT DESCRIPTION

This Draft Subsequent Environmental Impact Report (SEIR) has been prepared to evaluate the environmental impacts that may result from implementation of the proposed Climate Action and Adaptation Plan (CAAP) Project and Safety Element Update (proposed project). As Lead Agency, the City of Long Beach (City) has the authority for preparation of this Draft SEIR and, after the comment/response process, certification of the Final SEIR and approval of the proposed project as described in this Draft SEIR. The City and Responsible Agencies have the authority to make decisions on discretionary actions related to the approval of the proposed project. This Draft SEIR is intended to serve as an informational document to be considered by the City and the Responsible Agencies during deliberations on the proposed project. This Draft SEIR evaluates for a reasonable worst-case scenario of potential environmental impacts associated with the proposed project and provides mitigation where necessary. The analysis in this Draft SEIR is based on the proposed Draft *Climate Action and Adaptation Plan (CAAP)* (City of Long Beach, December 2020) (provided in Appendix B), the Draft *Safety Element Update* (City of Long Beach) (provided in Appendix C), and the *Climate Action and Adaptation Plan Consistency Review Checklist and Technical Support Documentation* (ESA, 2021) (provided in Appendix D).

The proposed CAAP is a comprehensive planning document providing a framework to reduce future greenhouse gas (GHG) emissions in the City of Long Beach through climate action strategies and lessen the impacts of climate change on the City through climate adaptation strategies. As a qualified climate action plan pursuant to the California Environmental Quality Act (CEQA), the proposed CAAP may be used to streamline the GHG analysis for future plans and projects undergoing review pursuant to Section 15183.5 of the *State CEQA Guidelines*. CEQA review of subsequent plans and projects that are consistent with the GHG reduction strategies and targets in the proposed CAAP may take advantage of CEQA streamlining for project-level GHG analysis on a project-by-project basis. The proposed Safety Element Update builds from the CAAP and is designed to address recent State legislation requiring cities to include goals, policies, objectives, and feasible implementation measures that place a greater emphasis on climate change impacts, including increased risks related to wildfires and flooding. The proposed amendments would bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. This Draft SEIR constitutes the environmental review of the proposed CAAP and Safety Element Update as planning documents. Neither the proposed CAAP nor the Safety Element Update proposes physical improvements and approval of these planning and policy documents would not constitute approval of any physical development. Any development or physical improvements incorporating features of the proposed project would be subject to project-specific CEQA review.

#### 3.1 PROJECT LOCATION AND SETTING

As illustrated on Figure 3-1, Project Location, the City (also referred to as the “planning area”) includes the entire 50 square miles within the limits of the City of Long Beach (excluding the City of Signal Hill, which is completely surrounded by the City of Long Beach) in Los Angeles County (County), California. The City is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton,

Paramount, and Bellflower, and the unincorporated community of Rancho Dominguez; and on the east by the Cities of Lakewood, Hawaiian Gardens, Cypress, Los Alamitos, and Seal Beach, and the unincorporated community of Rossmoor. The Pacific Ocean borders the southern portion of the City, and as such, portions of the City are located within the California Coastal Zone.

Regional access to the City is provided by Interstate 710 (I-710, which traverses the western portion of the City from north to south), Interstate 405 (I-405, which traverses the central portion of the City from northwest to southeast), State Route 91 (SR-91, which traverses the northernmost portion of the City from east to west), State Routes 103 and 47 (SR-103 and SR-47, respectively, which traverse the western border of the City from north to south), and State Route 1 (SR-1, which traverses the central portion of the City from east to west), commonly referred to as Pacific Coast Highway (PCH or SR-1). In addition, Interstate 605 and State Route 22 (I-605 and SR-22, respectively, and located northeast and east of the City) provide access to the eastern portion of the City.

In addition, a variety of transit routes maintained by the Metropolitan Transportation Authority (Metro), Long Beach Transit, and the Orange County Transportation Authority (OCTA) provide both regional and local access to and within the City. A variety of bicycle lanes and paths serve the City, including regional connections along PCH, the San Gabriel River pathway, and the Los Angeles River pathway.

### **3.2 PROJECT HISTORY AND DEVELOPMENT OF THE CAAP**

In November 2015, Long Beach Mayor Robert Garcia signed an official commitment to the Compact of Mayors (Compact, now called the Global Covenant of Mayors), a global coalition working to collectively reduce GHG emissions and enhance resilience to climate change. In order to comply with Compact requirements, the City must establish a plan for climate action and a plan for adaptation. Given the need for climate action and adaptation planning, the City's desire to be a leader in climate planning, and the myriad of state requirements related to GHG reduction and planning for climate adaptation, the City decided to develop a comprehensive climate action and adaptation plan through a single planning process.

Technical analysis that became the basis of the CAAP began in 2016, including a review of available climate science for Long Beach, a climate hazards analysis, vulnerability assessments and mapping, GHG emissions inventories and forecasts, and GHG reductions target setting. Three Working Groups, a Scientific, Community and Business Working Group, were convened in 2017. Broader community engagement for the CAAP began in 2018.

Between mid-2018 and mid-2019, a variety of community outreach events and activities were held and focused on validating the data and risk assessments, then developing and prioritizing policy solutions found in a draft CAAP that was released in mid-2019. Stakeholder engagement was key to the process and had two main components: (1) working with a series of stakeholder working groups and (2) extensive public outreach. Three stakeholder working groups were convened throughout the development of the proposed CAAP, including a scientific working group, a business working group, and a community working group. In addition to the stakeholder working groups, the proposed CAAP was also informed by an extensive public engagement process, which reached out to almost 10,000 residents and stakeholders at more than 60 events, including community meetings, open houses,

resource fairs, and expert panel discussions hosted throughout the City. The City worked in partnership with the working groups and the public to understand, prioritize, and plan mitigation measures and adaptation strategies towards CAAP goals and reduction targets, including new regulations, prioritized infrastructure improvements, strategies for growing a green economy, energy efficiency and alternative transportation incentive programs, urban greening efforts, and community partnerships.

### **3.3 CAAP RELATIONSHIP TO FEDERAL, STATE, AND LOCAL POLICIES**

One of the driving goals behind the proposed CAAP is its alignment with the various existing federal, State, and local policies guiding cities on how they can contribute to the overall federal, State, and local goals regarding climate change. In addition to the key policies related to the implementation of the proposed CAAP and Safety Element described below, please refer to Section 4.4, Greenhouse Gas Emissions, and Section 4.10, Transportation, of this Draft SEIR for a detailed discussion of all applicable federal, State, and local regulations and policies related to GHG emissions reductions and addressing global climate change impacts.

#### **3.3.1 Emissions Reduction Targets**

Assembly Bill (AB) 32 (2006), the California Global Warming Solutions Act, is California's landmark climate change mitigation legislation. The act set initial statewide GHG emissions targets and directed the California Air Resources Board (CARB) to periodically update a Scoping Plan to outline the State's plan for achieving emissions reductions. The 2017 Scoping Plan Update recommends local government goals of 6 metric tons (MT) of carbon dioxide equivalent (CO<sub>2</sub>e) per capita by 2030 and 2 MT CO<sub>2</sub>e per capita by 2050. The City has established a target to reduce per-service population (SP) (i.e., residents plus employees) emissions from a baseline of approximately 4.5 MT CO<sub>2</sub>e/SP in 2015 to 3.04 MT CO<sub>2</sub>e/SP (2.0 million metric tons [MMT] CO<sub>2</sub>e) in 2030, and by 2045, the City has established an aspirational goal of achieving net carbon neutrality.

Executive Order (EO) B-30-15 (2015) updated existing statewide GHG emissions reduction goals to 40 percent below 1990 levels by 2040, and 80 percent below 1990 levels by 2050.

Senate Bill (SB) 32 (2016), the California Global Warming Solutions Act, updates AB 32, requiring California to reduce GHG emissions to 40 percent below 1990 levels by 2030. SB 32 continues the timeline set by AB 32 to reach the targets set in EO B-30-15.

EO B-55-18 (2018) calls for statewide net carbon neutrality by 2045, as well as to achieve and maintain negative net emissions in subsequent years.

#### **3.3.2 General Plan Safety Element Updates**

Recent State legislation requires that cities include goals, policies, objectives, and feasible implementation measures that place a greater emphasis on climate change impacts, including increased risks related to wildfires, flooding, and climate change.

AB 3065 (2005) and SB 1241 (2012) require consideration of State Responsibility Areas (SRAs) and Very High Fire Hazard Severity Zones in the Safety Element of General Plans.

The Safety Element must also address peak load water supply requirements and minimum road widths and clearances around structures, as they relate to identified topics related to both fire and geologic hazards (Government Code Section 65302[g][1]).

SB 99 (2019) requires the identification of residential developments in any identified hazard areas that do not have at least two emergency evacuation routes.

AB 747 (2019) requires the safety element to identify evacuation routes and “their capacity, safety, and viability under a range of emergency scenarios.”

The flood legislation package encompassed by SB 5, AB 162, AB 70 (2007), and SB 1278 (2012) requires safety elements to identify flood hazards and to establish a set of comprehensive goals, policies, and objectives for the protection of the community from risks of flooding. These flood protection bills also included new consultation requirements for the preparation and revision of safety elements. SB 379 (2015) requires the Safety Element to include a climate change vulnerability assessment, measures to address climate change vulnerabilities, and a comprehensive climate hazard mitigation and emergency response strategy.

SB 1035 (2018) requires the safety element be reviewed and updated upon each revision of the housing element no less than once every eight years, to address climate adaptation and resiliency and identify new information related to flood and fire hazards.

### **3.3.3 Relationship to the General Plan and CEQA Streamlining for GHG Analysis**

The proposed CAAP was included as Mitigation Measure GHG-1 of the City’s General Plan Land Use and Urban Design Elements EIR, which was certified in December 2019. Recognizing that the State obligates the City to create opportunities for increased housing and jobs to meet the needs of a growing population, the proposed CAAP outlines requirements, incentives, and potential policies to ensure more sustainable development.

In order to meet obligations under State law, local governments may prepare a Plan for Reduction of Greenhouse Gases that is consistent with AB 32 and SB 32 goals. The development of such a plan can be used to streamline the GHG analysis for future plans and projects undergoing review pursuant to Section 15183.5 of the *State CEQA Guidelines*. This approach allows jurisdictions to address GHG emissions at a community-wide level to determine the most effective and efficient methods to reduce them, to identify the reduction measures that would promote the goals of the General Plan, and to employ the reduction measures that have the most co-benefits (such as, for improving mobility and access, increasing local economic development, reducing household and business utility and transportation costs, and improving public health). The CAAP serves as the plan for reduction of GHG emissions for the City. Future discretionary plans and projects that are consistent with the GHG reduction strategies and targets in the proposed CAAP may be able to take advantage of CEQA streamlining for project-level GHG analysis.

The proposed project also includes amendments to and combining of the Public and Seismic Safety Elements to incorporate recognition of climate change and resiliency, consistent with the climate adaptation and resiliency considerations and strategies included in the proposed CAAP. As described

above, SB 379 requires that cities and counties include climate adaptation and resiliency strategies in their General Plans to ensure the safety and protection of their communities. In addition, through the CAAP process, information was gathered to develop a report to comply with SB 691, which requires local planning to address sea level rise in the Tidelands area of the City.

The City currently addresses safety issues in two of its General Plan elements: the Public Safety Element and the Seismic Safety Element. The Public Safety Element is proposed to be updated to reflect recent information and mapping, and to meet the requirements of State law. The Draft Safety Element Update provides additional information related to climate adaptation and resiliency, including flood hazards, wildland and urban fire hazards, water supply for firefighting, evacuation routes, road widths and clearance around structures, and hazardous materials handling and transportation. The Seismic Safety Element would be consolidated into the proposed Safety Element, with the information updated to reflect the most current data and Building Code requirements, including descriptions and exhibits related to earthquake fault locations, surface fault rupture, seismic ground shaking, liquefaction and earthquake-induced settlement, and tsunamis, along with other geologic hazards including soil erosion, landslides, and mudslides. The proposed project includes the adoption of an updated and consolidated single Safety Element.

General Plans are required to include goals, policies, objectives, and feasible implementation measures that avoid and minimize public risk from identified hazards. The current General Plan Seismic Safety and Public Safety Elements contain a set of recommendations, but do not include a listing of policies. Therefore, distinct goals, policies, objectives, and implementation programs designed to protect the public from safety hazards are proposed for the newly consolidated Safety Element. The draft updates to the Safety Element incorporate the proposed CAAP as well as reference to and incorporation of other recent City planning documents, such as the City's Emergency Operations Plan (2015), Local Hazard Mitigation Plan (2017), and Tsunami Preparedness Guide (2017).

### 3.3.3.1 CAAP Checklist

As a qualified climate action plan pursuant to CEQA, the proposed CAAP provides the framework to achieve the City's GHG reduction targets, and the CAAP Consistency Review Checklist (CAAP Checklist) would be used as the basis for future assessments of consistency with this plan in lieu of a project-specific GHG CEQA analysis for future discretionary projects subject to CEQA (Appendix D). The CAAP Checklist is required to accompany the City's Environmental Determination Application Checklist for all projects and plans subject to CEQA review, whether supported by private or government (local or State) funding, proposed within the City limits. Future discretionary projects, including projects proposed by private developers, other agencies, or City-implemented municipal projects, would first be reviewed to see if they meet the screening criteria included in the Consistency Checklist. If a project is both consistent with the General Plan Land Use Element (LUE) and demonstrates consistency with the General Plan and CAAP Checklist, then the project is considered consistent with the CAAP and is eligible for CEQA streamlining of project-level GHG analysis. Alternatively, if a project can demonstrate that it would achieve fewer than 1.4 MT CO<sub>2</sub>e/SP or less, which is the CAAP's effective efficiency-level reduction target for new development, then the project would be considered consistent with the CAAP. If a project cannot fully demonstrate consistency with every component of the General Plan and CAAP Checklist, it may

propose alternative actions but must provide substantial evidence as to how such actions would achieve the same or greater level of GHG emissions reductions as the CAAP Action that it replaces. If the project is inconsistent with the LUE and requires a General Plan Amendment (GPA), the project may still be eligible for streamlining of a project-level GHG analysis if it can be demonstrated that either (1) the GPA project would achieve emissions of 1.4 MT CO<sub>2</sub>e/SP or less; or (2) the GPA would allow a land use designation to facilitate a lower per-service population carbon footprint than the existing designation (e.g., if a GPA were for a higher density residential or mixed-use designation near transit compared to the existing land use designation). Such a project would still be eligible to utilize the CAAP Checklist to demonstrate consistency. If a project does not demonstrate consistency through any of the avenues described above, a project-specific GHG analysis would be required. Lastly, if through the preparation of the CAAP Checklist, a project cannot implement the required Tier 1 CAAP Actions required for all future discretionary projects or cannot demonstrate implementation of equivalent replacement strategies, a project-specific GHG analysis would be required. These steps for utilizing the CAAP Checklist are described in further detail below.

**Screening Criteria.** Certain projects may be screened out of the CAAP Checklist if they meet certain criteria designed to ensure high efficiency and low GHG emissions. Projects that meet the following screening criteria would generally be consistent with the CAAP's GHG emissions reduction actions (CAAP Actions) for new development and would therefore also be considered consistent with the CAAP: If the project would achieve emissions of 1.4 MT CO<sub>2</sub>e/SP or less, the project would be considered consistent with the CAAP and no project-specific GHG impact analysis would be required.

Additionally, projects may skip completion of the *Transportation* subsection of the CAAP Checklist if they meet one of the following criteria:

1. Located in a Transit Priority Area or High Quality Transit Area (HQTA).
2. Include local-serving retail (e.g., grocery stores, pharmacies, or restaurants) less than 50,000 square feet.
3. Include 100 percent affordable housing.
4. Would result in fewer than 110 daily trips per day.

Even if the project meets one of these criteria, completion of the *Building Energy* and *Waste* sections of the CAAP Checklist would still be required.

**Consistency with General Plan Land Use Assumptions.** Projects that are consistent with the demographic forecasts and land use assumptions used in the CAAP (i.e., consistent with the City's General Plan LUE) can utilize the CAAP Checklist to demonstrate consistency with the CAAP, and if consistent, can tier from the existing programmatic environmental review contained in the adopted Subsequent EIR for the CAAP and adopted EIR for the General Plan LUE. In doing so, pursuant to *State CEQA Guidelines* Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable. This approach is consistent with the recommendations of the Association of

Environmental Professionals (AEP) Climate Change Committee (2016) for tiering from qualified GHG reduction plans that demonstrate substantial progress toward meeting the next milestone statewide planning reduction target (i.e., a 40 percent reduction below 1990 levels by 2030 as set forth by SB 32).

The CAAP Checklist for new development provides a mechanism for projects to specifically identify “those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project” per *State CEQA Guidelines* Section 15183.5(b)(2)).

GHG emissions associated with construction from a land use development project are generally orders of magnitude lower than the operational emissions. This is because construction emissions are typically short in duration compared to the project’s overall lifetime. Therefore, construction emissions can be assessed qualitatively as part of related CEQA GHG emissions analysis. However, some projects may have long construction periods or entail substantial excavation and grading that could result in construction-related GHG emissions that may be considered significant. Therefore, the City retains the discretion on a project-by-project basis to consider whether a project’s construction-related GHG emissions could be cumulatively considerable and require more detailed quantitative CEQA GHG emissions analysis and mitigation.

If a project is not consistent with the land use designations of the adopted General Plan LUE, it is not eligible for streamlining of a project-level GHG analysis through the CAAP Checklist unless it can be demonstrated that the requested change in land use designation would support the CAAP’s strategies and emissions reduction targets by changing the existing land use to a land use designation anticipated to result in fewer per-service population emissions, such as to a higher density residential or mixed-use designation near transit, which is consistent with the CAAP goals and policies. Projects that are inconsistent with existing General Plan land use designations and that cannot demonstrate the GPA would reduce per-service population emissions compared to existing land use designations at the project site must prepare a comprehensive project-specific analysis of GHG emissions. This analysis must quantify existing and projected GHG emissions and incorporate Tier 1 CAAP Actions or equivalent replacement strategies and Tier 2 CAAP Actions to the extent feasible, along with identified project-specific mitigation measures.

**CAAP Actions.** The proposed CAAP includes GHG reduction actions (hereto referred to as CAAP Actions) for the categories of Building and Energy (BE), Transportation (T), and Waste (W).<sup>1</sup> The CAAP Checklist includes a variety of measures that support the CAAP Actions. All future discretionary projects seeking to utilize the CAAP Checklist to streamline the project’s GHG analysis under CEQA must demonstrate consistency with these measures or document why the measures that support the CAAP Actions are not applicable or are infeasible, and alternative measures must be identified and quantified as replacement strategies. The CAAP Checklist categorizes all measures as either Tier 1 or Tier 2. Refer to Table 2 of the CAAP Checklist provided in Appendix D of this

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<sup>1</sup> The proposed CAAP describes the GHG reduction actions as “Mitigation Actions”; however, for the purposes of this Subsequent EIR, these actions are referred to as “CAAP Actions”, as they are strategies intended to mitigate the effects of GHG emissions but are not mitigation measures as defined under CEQA.

document for the list of all Tier 1 and Tier 2 measures that support the CAAP Actions. A project-specific environmental document that relies on the CAAP Checklist for its GHG emissions impacts analysis would identify the specific CAAP Actions applicable to the project and would also describe how the project incorporates Tier 1 measures as required, or equivalent replacement strategies, and Tier 2 measures, as applicable. If the measures are not otherwise binding and enforceable, they must be incorporated as mitigation measures or project conditions of approval, or as some other mechanism to ensure implementation.

**Tier 1.** Tier 1 measures are considered as mandatory or required for all future discretionary projects that may utilize the CAAP Checklist for GHG streamlining per the screening criteria described above either because they support the five quantified CAAP Actions or because they are required under the existing regulatory setting. Refer to the CAAP Checklist and Technical Support Documentation (Appendix D) for the substantial evidence and calculations that demonstrate how the Tier 1 measures support five quantified CAAP Actions (BE-1, BE-2, T-1, W-1, and W-2) and ensure that future development is doing its fair share towards meeting the City's GHG reduction targets.<sup>2</sup>

**Tier 2.** Tier 2 measures are comprised of additional GHG reduction strategies from CAAP Actions that are not quantified as part of the City's GHG reduction pathway as well as measures to implement CAAP Adaptation Actions as part of future discretionary projects. Tier 2 measures would also support the CAAP Actions and are encouraged to be implemented by future discretionary projects, as applicable, to help facilitate the City's efforts to reduce GHG emissions and lessen the impacts of climate change.

The proposed CAAP provides details on implementing these GHG reduction and adaptation strategies, including the party or parties responsible for implementation at a citywide level. The CAAP Checklist translates the program-level CAAP Actions to measures that can be implemented at the project level. CAAP Actions also include GHG reduction strategies that apply to the City itself, as well as Adaptation Actions that are encouraged to be included with future discretionary projects, as applicable, but may be implemented by the City or other agencies and may not all be subject to CEQA. As the CAAP Checklist is intended to provide an avenue for streamlining for project-level GHG analysis under CEQA, the CAAP Checklist would only apply to future discretionary projects. For all future discretionary projects, the City would review the CAAP Consistency Checklist to determine if the project is consistent with the General Plan LUE and whether: (a) the project meets the screening criteria and is consistent by the nature of the project; (b) the project would implement all required Tier 1 CAAP Actions and Tier 2 CAAP Actions and/or Adaptation Actions, as applicable; (c) the project includes one or more replacement strategies that would be equally or more effective in reducing GHG emissions, and such replacement strategy or strategies are not included in the proposed CAAP or required by any other regulation, standard, design criteria, or other existing requirement; or (d) the project is inconsistent with the CAAP and a project-specific GHG analysis is required.

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<sup>2</sup> Only four Tier 1 measures were quantified, representing implementation of five quantified CAAP measures. There are an additional seven Tier 1 measures that were not quantified for new development in the CAAP; these measures are required for all projects to demonstrate consistency with the CAAP (including the BAU forecasts), but are not tied directly to specific GHG emission reductions. See the Technical Support Documentation, provided in Appendix D, for more information.

## 3.4 PROPOSED PROJECT

### 3.4.1 Summary

The proposed project is the adoption of a CAAP, and it represents the City's first plan of this type. The proposed CAAP is a comprehensive and programmatic planning document outlining the City's proposed approach both to address climate impacts on Long Beach and to reduce Long Beach's impact on the climate by reducing GHG emissions. The proposed CAAP provides a framework to reduce the City's GHG footprint (climate action) and ensure the community and physical assets are better protected from the impacts of climate change (climate adaptation). The vision of the proposed CAAP is to create a more sustainable, resilient, and equitable city by addressing climate change in a way that remedies existing environmental health disparities while also improving health, quality of life, and enhancing economic vitality throughout Long Beach. The proposed CAAP includes a roadmap for implementing new policies, programs, incentives, requirements, projects, and initiatives in the immediate future, as well as longer-term actions that will need to be studied further while monitoring how the climate continues to change and evaluating the effectiveness of actions taken.

The proposed CAAP discusses several desired high-level outcomes, which are organized into the following themes: low carbon, climate resilient buildings and neighborhoods; safe and adaptable infrastructure; protected and enhanced natural systems; a healthy, resilient and ready population; and, residents and businesses with a minimized carbon footprint. The purpose of the CAAP is to implement a range of actions to reduce GHG emissions and adapt to climate change impacts. The actions proposed by the CAAP are organized by the desired outcomes, which represent the underlying values of the CAAP.

The proposed CAAP is organized into the following chapters:

- Chapter 1.0: What is the Climate Action and Adaptation Plan?
- Chapter 2.0: How was the CAAP Developed?
- Chapter 3.0: Understanding Climate Change in Long Beach
- Chapter 4.0: Adaptation Actions
- Chapter 5.0: GHG Inventory, Forecasts, and Targets
- Chapter 6.0: Mitigation Actions
- Chapter 7.0: City Leadership and Funding
- Chapter 8.0: Performance and Monitoring

Plans prepared to reduce GHG emissions are considered qualified GHG reduction plans if they meet the criteria established in *State CEQA Guidelines* Section 15183.5[b][1]. The proposed CAAP must therefore achieve the following criteria in order to be considered a qualified plan:

- Complete a baseline emissions inventory and project future emissions.
- Identify a community-wide reduction target.

- Prepare a Climate Action Plan (CAP) to identify strategies and measures to meet the reduction target.
- Monitor the effectiveness of reduction measures and adapt the plan to changing conditions.
- Adopt the CAP in a public process following environmental review.

The proposed CAAP addresses each of these criteria, as summarized below.

Chapter 5.0 of the proposed CAAP includes the GHG inventory and presents the 2015 base year emissions inventory and forecasts, the City's 2030 emissions target, and an aspirational goal to achieve net carbon neutrality by 2045. The methodology and data that support this chapter are further detailed in Appendix A of the proposed CAAP (GHG Methodology & 2030 Reduction Target Pathway). Chapter 6.0 of the proposed CAAP contains three subsections, one for each proposed CAAP emissions sector area, that describe the CAAP Actions that will be implemented to achieve the City's GHG targets. The implementation mechanisms at the project level for these CAAP Actions are provided in Appendix D, the *Climate Action and Adaptation Plan Consistency Review Checklist and Technical Support Documentation*. Chapter 7.0 of the proposed CAAP includes City leadership, funding, and financing strategies, and Chapter 8.0 of the proposed CAAP describes the City's process for monitoring, evaluating, and revising the proposed CAAP to ensure that the estimated strategy reductions do occur so that the targets are achieved. Refer to Section 3.4.2 below for a detailed discussion of the City's GHG reduction targets. As part of the proposed CAAP, the City has included adaptation strategies that the City will pursue to adapt to and protect against major anticipated climate change impacts such as extreme heat, worsening air quality, drought, and sea level rise and flooding. Chapters 4.0 and 6.0 of the proposed CAAP include the adaptation and mitigation strategies, respectively. This Draft SEIR demonstrates compliance with the criteria for the environmental review process of the proposed CAAP.

### **3.4.2 GHG Inventory, Forecasts, and Reduction Targets**

#### **3.4.2.1 GHG Inventory**

As described above, the reduction of GHG emissions is the primary objective of the proposed CAAP. The proposed CAAP utilizes a baseline year of 2015 to reflect existing conditions at the time the CAAP development process began.

Establishing a baseline is necessary in order to understand how emissions will increase through 2050 if no GHG reduction action is taken. The baseline is also used to develop reduction strategies and evaluate their effectiveness in meeting GHG emissions targets set by the proposed CAAP. This is the first time that the City has calculated a community-wide inventory or set a GHG reduction target.

The emissions results are expressed as MT CO<sub>2</sub>e/yr to provide a standard measurement that incorporates the varying global warming potential (GWP) values of different GHGs. The GWP describes how much heat a GHG can trap in the atmosphere relative to carbon dioxide, which has a

GWP of 1. For example, methane has a GWP of 28, which means that 1 MT of methane will trap 28 times more heat than 1 MT of carbon dioxide, which makes it a more potent GHG.<sup>3</sup>

To provide a robust understanding of the GHG inventory, GHG emissions were analyzed using three different accounting methods: production-based inventory, consumption-based inventory, and life cycle emissions inventory. The primary emissions analysis is a production-based inventory which accounts for emissions produced within the community, such as vehicle travel, home energy use, and waste disposal. The production-based inventory is the foundation for the City's emissions forecasts and target setting, and it is the inventory against which CAAP implementation will be measured, consistent with State law and guidance including SB 32. For informational purposes and public education, the proposed CAAP also includes a consumption-based inventory, which accounts for lifecycle emissions that occur inside and outside of the community from consumptive activities by individuals and businesses. The CAAP is also informed by an oil and gas lifecycle emissions inventory, which accounts for lifecycle emissions that occur inside and outside of Long Beach from oil and gas extraction activities within Long Beach. However, only the production-based inventory is considered in the analysis of this Draft SEIR, as the City can most directly influence emissions related to the sources included in the production inventory and as is recommended by State guidance.

The proposed CAAP represents a community-wide GHG inventory that follows the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) to support consistency in community-wide inventory preparation and comparison. Guidance provided in the GPC is the globally accepted framework for calculating and reporting community GHG emissions, as well as the standard used by the Global Covenant of Mayors, the world's largest cooperative effort among mayors and city officials to reduce global GHG emissions, track progress, and prepare for the impacts of climate change. The GPC requires cities to report their emissions by GHG, sector and sub-sector, and scope. The scopes framework helps to differentiate emissions occurring physically within the city (Scope 1) from those occurring outside the city (Scope 3), and from the use of energy supplied by grids (e.g., electricity) that may cross city boundaries (Scope 2).

The GPC also provides two levels of reporting, referred to as BASIC and BASIC+, for the sources of the emissions analyzed. The City of Long Beach developed a total production-based inventory that achieves the BASIC reporting requirements and allows a comparison of the City's emissions with those of other cities that follow the GPC methodology. BASIC+ reporting requires more comprehensive coverage of emissions sources, including some sources over which a city has limited control to reduce emissions. During preparation of the BASIC inventory, data were collected for additional BASIC+ emissions sources—transboundary aviation and transboundary port waterborne activity emissions—and analyzed separately to provide an additional emissions perspective. For example, emissions from airplanes landing at Long Beach Airport, which are federally regulated and over which the City has limited control, are not included in the BASIC inventory, but emissions associated with airport operations that are in the City's control, such as ground transport, are included. Finally, the City of Long Beach developed a jurisdictional production-based inventory, which accounts for emissions sources over which the City and community have some amount of

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<sup>3</sup> International Panel on Climate Change (IPCC). 2014. IPCC Fifth Assessment Report (AR5). Website: <https://www.ipcc.ch/report/ar5/syr/> (accessed December 22, 2021).

influence, for target setting and monitoring purposes. These jurisdictional emissions sources are primarily aligned with the BASIC inventory described above, except for the exclusion of port-based waterborne activities like cargo shipping.

The jurisdictional production-based inventory is organized into three emissions categories, or sectors, based on their sources:

- **Stationary Energy:** Emissions from building electricity and natural gas use in residential, commercial, institutional, and industrial buildings, as well as emissions from energy industries operating within the City limits.
- **Transportation:** Emissions associated with passenger vehicles, buses, trucks, rail transit, freight rail, off-road vehicles, and ground aviation operations.
- **Waste:** Emissions from waste disposed in landfills or incinerated, and emissions from wastewater treatment.

To provide a complete emissions analysis, the City evaluated its total production inventory according to the BASIC and BASIC+ reporting frameworks. In 2015, the City's BASIC emissions totaled 3,100,468 MT CO<sub>2</sub>e/yr, which equates to 6.6 MT CO<sub>2</sub>e per resident (MT CO<sub>2</sub>e/capita) and 5.0 MT CO<sub>2</sub>e/SP (i.e., residents and employees). In 2015, the City's BASIC+ emissions totaled 3,366,173 MT CO<sub>2</sub>e/yr (or 7.2 MT CO<sub>2</sub>e/capita and 5.4 MT CO<sub>2</sub>e/SP), which reflect the BASIC inventory emissions with the addition of transboundary aviation and transboundary port waterborne activity emissions.

One of the primary purposes of a community emissions inventory is to inform city climate policy development, and the CAAP was designed to focus on opportunities for local action that are within the City's and the community's control. This is why the proposed CAAP focuses on jurisdictional emissions. Emissions occurring from vessel operations at the Port of Long Beach are, in part, regulated at the State level by the CARB, and the City does not have the direct authority to dictate emissions reduction policies for private shipping companies that operate from the port. For this reason, the City has removed port waterborne activity from the emissions inventory analyzed in the proposed CAAP, although the air quality impacts of such activities are still considered and air quality Adaptation Strategies are proposed. Aviation operations include emissions associated with the operation of ground service equipment and generators at the Long Beach Airport. Emissions associated with transboundary airplane trips are not included in the BASIC reporting framework. The BASIC+ reporting framework includes emissions from transboundary aviation; these actions are federally regulated, and therefore, the City has limited control.

Target setting and analysis within the proposed CAAP are based on the jurisdictional inventory, as described above. The jurisdictional inventory totals 2,799,123 MT CO<sub>2</sub>e in 2015. This equates to approximately 6.0 MT CO<sub>2</sub>e/capita and 4.5 MT CO<sub>2</sub>e/SP. Figure 3-2, Production Inventory Emissions Summary, illustrates the details of the City's 2015 jurisdictional production inventory results by sector and sub-sector.

Emissions associated with energy use in port facilities and with on-road trucking activities associated with the Port of Long Beach are still included in the CAAP inventory and analyzed for GHG target-setting purposes. The Port of Long Beach not only develops its own annual emissions inventories,

but also developed a Clean Air Action Plan that is designed to improve air quality and reduce GHG emissions associated with port activities. As the Port of Long Beach is the entity responsible for implementation of its Clean Air Action Plan and reducing port emissions, the City's proposed CAAP includes an Adaptation Action to implement this plan but does not replace the GHG emissions reduction efforts of that plan.

#### 3.4.2.2 Forecasts

The production inventory was used to develop community-wide emissions forecasts for the 2030, 2040, and 2050 planning time frames. These "business-as-usual" (BAU) forecasts estimate how emissions could change in the future if no local action is taken, such as through CAAP implementation.<sup>4</sup> The emissions forecasts provided in the Draft CAAP provide useful insights about the scale of reductions necessary to achieve the City's emissions targets and represent a best estimate of the future.

Emissions were forecast using a variety of factors that represent the drivers of emissions growth in the community, such as local population growth, employment, and travel demand modeling. The forecasts also take into account State requirements related to GHG reduction, such as the Renewables Portfolio Standard (RPS) Program, which is a State law that requires increasing amounts of renewable electricity in California and various vehicle efficiency standards that will reduce emissions from on-road transportation to help achieve California's 2030 GHG targets.

As illustrated on Figure 3-3, Business-as-Usual Emissions Forecasts 2015–2050 and Emissions Targets, the City's BAU emissions forecasts show that emissions are expected to decrease from 2015 through 2050. The forecasted decline is largely a result of statewide and regional actions such as California's RPS, which would result in a reduction in the carbon intensity of electricity supplied to the grid, an estimated decrease in natural gas use in the energy sector due to energy efficiency improvements (via SB 350 and utility programs), the transition from natural gas uses to electricity in both existing and new buildings, and declining vehicle emission factors due to the Pavley vehicle fuel efficiency standards and vehicle turnover. Per capita emissions are estimated to decrease through 2050 from 6.0 MT CO<sub>2</sub>e/capita in 2015 to 4.5 MT CO<sub>2</sub>e/capita in 2030, and 3.1 MT CO<sub>2</sub>e/capita in 2050, while per service population emissions are estimated to decrease from 4.5 MT CO<sub>2</sub>e/SP to 3.3 MT CO<sub>2</sub>e/SP in 2030, and 2.2 MT CO<sub>2</sub>e/SP in 2050.

#### 3.4.2.3 Reduction Targets

The City evaluated a series of GHG reduction target options during the development of the proposed CAAP. Several reduction target options were considered and were vetted by the CAAP Scientific Working Group. The targets selected represent the City's commitment to doing its fair share and meeting its requirements to help California achieve its ambitious statewide GHG targets. Table 3.A outlines the State's GHG reduction commitments.

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<sup>4</sup> The BAU forecast still takes into consideration the federal and State reduction measures described in this chapter as there is no scenario where the City would have the authority or intent to prevent these measures from occurring. These measures include the Renewables Portfolio Standard (RPS), the Pavley vehicle fleet standards, the Southern California Association of Governments' (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and others.

**Table 3.A: State of California Greenhouse Gas Targets**

Target Year	Target	Corresponding Legislation
2020	Return to 1990 GHG levels by 2020	Assembly Bill 32, the California Global Warming Solutions Act of 2006
2030	40% below 1990 levels by 2030	Senate Bill 32, the Global Warming Solutions Act of 2006
2045	Carbon neutrality by 2045	Executive Order B-55-18 of 2018
2050	80% below 1990 levels by 2050	Executive Order S-3-05 of 2005

Source: City of Long Beach, Proposed Long Beach CAAP, Table 8 (December 2020).

CAAP = Climate Action and Adaptation Plan

GHG = greenhouse gas

The City’s near-term 2030 target was selected based on guidance provided in CARB’s 2017 California Climate Change Scoping Plan and was developed to demonstrate consistency with the statewide 2030 target shown in Table 3.B. The City’s 2030 target is established on a per-service population basis and aims to achieve emissions rates of 3.04 MT CO<sub>2</sub>e/SP. This compares to the City’s 2030 BAU forecast of 3.34 MT CO<sub>2</sub>e/SP. Based on the City’s service population growth estimates, the 2030 target emissions level is 1,984,272 MT CO<sub>2</sub>e/yr. GHG reductions of approximately 192,659 MT CO<sub>2</sub>e will be required to achieve this target, or a reduction of approximately 0.3 MT CO<sub>2</sub>e/SP compared to BAU. Table 3.B summarizes the City’s 2030 GHG target.

**Table 3.B: City of Long Beach GHG Reduction Targets**

2030 GHG Target	3.04 MT CO <sub>2</sub> e/Service Population
Emissions Business as Usual Forecast	2,176,931 MT CO <sub>2</sub> e/yr
Emissions Target Level	1,984,272 MT CO <sub>2</sub> e/yr
<b>GHG Reductions Needed</b>	<b>192,659 MT CO<sub>2</sub>e/yr</b>

Source: City of Long Beach, Proposed Long Beach CAAP, Table 9 (revised) (December 2020).

GHG = greenhouse gas

The CAAP’s 2030 target of 3.04 MT CO<sub>2</sub>e/SP aligns with the statewide 2030 target as codified in SB 32 and the 2017 CARB Scoping Plan Update. This value is derived from an adjusted statewide emissions inventory that accounts for the same local emissions sources contained in the CAAP’s emissions inventory for the City. This was done because community GHG inventories often do not include all of the same emissions sectors as the statewide inventory. Therefore, a scaled version of the full statewide emissions inventory was based on the emissions inventory sectors occurring in Long Beach, which is more appropriate for use in community CAAP target-setting because it draws a clearer correlation between the City’s GHG target and its relationship to the State’s own targets. After excluding emissions not included in the CAAP’s inventory and forecast, the adjusted statewide 1990 inventory is 324.4 MMT CO<sub>2</sub>e (versus the full inventory of 431 MMT CO<sub>2</sub>e). To align with SB 32 (40 percent below 1990 levels by 2030), the 2030 target emissions level for the State would be 194.6 MMT CO<sub>2</sub>e. The total projected service population of California is 64.6 million; therefore, the adjusted SB 32 target for 2030 would be 3.04 MT CO<sub>2</sub>e/SP. This target also sets the City on a trend to achieve California’s 2050 GHG emissions reduction target and would therefore align with the Paris Agreement 2°C goal.

Consistency with the 2017 Scoping Plan Update and SB 32 is an appropriate metric by which the City may determine the significance of future discretionary projects’ GHG emissions impacts. The *State CEQA Guidelines* Section 15064.4(b)(3) states that a lead agency “may consider a project’s

consistency with the State’s long-term climate goals or strategies” when determining the significance of a project’s impacts. Additionally, in *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal.4<sup>th</sup> 204 (*Newhall*), the California Supreme Court sanctioned the use of such a threshold by stating that assessing a project’s GHG impacts based on a “consistency with a GHG emission reduction plan” threshold of significance is legally permissible under CEQA. Further, the use of an efficiency metric as a threshold of significance for GHG emissions is supported in the literature by a number of sources. The Governor’s Office of Planning and Research’s (OPR) 2018 *Discussion Draft: CEQA and Climate Change* states that an efficiency metric is an appropriate method to determine significance: “A significance threshold that is based on an efficiency metric—rather than an absolute number—would allow lead agencies to compare projects of various types, sizes, and locations equally, and determine whether a project is consistent with the State’s reduction goals.”<sup>5</sup> The efficiency metric for 2030 above is derived using the 2017 Scoping Plan’s recommendations for local land use development to contribute their “fair share” of emissions reductions to the statewide GHG target for 2030. This is consistent with the AEP 2016 white paper recommendation for “Substantial Progress” thresholds for land use development to show consistency with statewide targets.<sup>6</sup>

As discussed above, the proposed CAAP establishes a 2030 GHG target consistent with the State’s adopted 2030 GHG target (i.e., 40 percent below 1990 levels by 2030) and CAAP Actions are further defined to demonstrate a feasible and quantifiable reduction pathway toward target achievement. The GHG inventory methodology and reduction pathway are detailed in Appendix A of the CAAP.

As discussed further in Appendix A of the CAAP, the CAAP evaluated the GHG reduction potential that would result from implementation of the CAAP along with other initiatives such as Southern California Edison’s (SCE) commitment to provide 80 percent carbon-free energy by 2030, as well as the additional net emissions reductions that would occur from voluntary participation in SCE’s Green Rate program. These separate initiatives were factored into the CAAP implementation scenario (not the BAU scenario).

The CAAP implementation scenario was developed using participation estimates and/or goals for the different electricity-focused CAAP actions to calculate what amount of future electricity demand would be provided by renewable sources in a manner that differs from the BAU scenario.

The proposed CAAP also includes an initial evaluation of a long-term aspirational GHG reduction goal to achieve net carbon neutrality and includes the strategies that will be required to achieve it. The City has set an aspirational goal to achieve net carbon neutrality by 2045, which is consistent with California EO B-55-18, which calls for statewide net carbon neutrality in the same year.

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<sup>5</sup> Governor’s Office of Planning and Research (OPR). 2018. *Discussion Draft: CEQA and Climate Change*. December 2018. Website: [https://opr.ca.gov/docs/20181228-Discussion\\_Draft\\_Climate\\_Change\\_Adivsory.pdf](https://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Adivsory.pdf) (accessed December 2021).

<sup>6</sup> Association of Environmental Professionals (AEP). 2016, *Final White Paper - Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California*, October 18. Website: [https://califaep.org/docs/AEP-2016\\_Final\\_White\\_Paper.pdf](https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf) (accessed December 2021).

Figure 3-3 also illustrates the City's emissions forecasts and reduction targets. The gap between the emissions forecast (top line) and the target (bottom line) shows the amount of reductions needed in each year. The actions included in the proposed CAAP will help the City achieve its near-term 2030 target and begin moving forward on its path toward the 2045 aspirational goal.

### 3.4.3 CAAP Actions

The proposed CAAP identifies 21 priority GHG reduction actions (referred to as CAAP Actions), which are intended to reduce the City's per-service population GHG emissions. CAAP Actions are in the following sectors: Building and Energy, Transportation, and Waste. Each CAAP Action identifies an implementation lead and partners, general timeline (short, medium, long) and City costs (low, medium, high), co-benefits, implementing sub-actions, and an equity strategy for maximizing benefits of each action for communities most impacted by climate change, including low-income communities of color. Appendix F of the proposed CAAP (provided in Appendix B of this Draft SEIR) includes a preliminary set of potential performance metrics associated with each action that will be considered. In addition to ongoing evaluation of efforts towards the GHG reduction target through bi-annual inventories, these will be used to track action-specific outcomes related to GHG reductions, co-benefits, and equity, and complement GHG monitoring as outlined in the Implementation and Monitoring chapter of the proposed CAAP.

Adoption of the proposed CAAP would not directly propose, facilitate, or approve physical improvements or new development, but rather provide a set of strategies for reducing emissions citywide, including improvements to be implemented by the City, other agencies, or through both mandatory and encouraged strategies that would apply to future discretionary projects to achieve the City's GHG emissions reduction targets. All future projects developed to implement CAAP Actions will be reviewed at the project level to determine if implementation of the action is subject to a discretionary action and review under CEQA. Future implementation of certain CAAP Actions may not be subject to CEQA review; however the proposed project includes the adoption of the CAAP at a programmatic level, and impacts from all potential future CAAP Actions at this time would be speculative. Therefore, the analysis in this Draft SEIR focuses on the potential impacts from the measures included in the CAAP Checklist to be incorporated as part of future discretionary projects, as well as the potential impacts of the CAAP Actions and Adaptation Actions at a programmatic level.

The Building and Energy (BE) CAAP Actions are intended to transition the City to renewable energy and increase energy efficiency in existing and new residential, commercial, and municipal buildings. The Transportation (T) CAAP Actions facilitate existing City efforts to increase use of and improve transit service, expand the City's bikeway and pedestrian networks, and increase housing and employment density along major transit corridors. New actions are also included to increase rapid bus service, establish bus-only lanes, and expand electric-vehicle charging infrastructure to further reduce emissions. The Waste (W) CAAP Actions are designed to increase recycling and expand communitywide participation in organic waste collection and diversion. Additional analysis will be needed to develop specific mitigation approaches and projects at specific locations. CEQA review of subsequent plans and future discretionary projects that are consistent with the GHG reduction strategies and targets in the proposed CAAP may take advantage of CEQA streamlining for project-level GHG analysis on a project-by-project basis by utilizing the Consistency Checklist provided in

Appendix D in place of a project-level GHG emissions analysis. However, this Draft SEIR does not analyze any physical improvements, facilitate future development, or environmentally clear future projects as the proposed project is the adoption of this programmatic planning document, and no physical development is contemplated at this time.

The proposed CAAP includes the following CAAP Actions that would demonstrate future projects' consistency with the goals of the proposed CAAP:

**Building and Energy**

BE-1: Provide access to renewably generated electricity

BE-2: Increase use of solar power

BE-3: Promote community solar and microgrids

BE-4: Develop a residential and commercial energy assessment and benchmarking program

BE-5: Provide access to energy efficiency financing, rebates, and incentives for building owners

BE-6: Perform municipal energy and water audits

BE-7: Update building codes to incentivize electric new residential and commercial buildings

BE-8: Implement short-term measures to reduce emissions related to oil and gas extraction

**Transportation**

T-1: Increase the frequency, speed, connectivity, and safety of transit options

T-2: Expand and improve pedestrian infrastructure citywide

T-3: Increase bikeway infrastructure citywide

T-4: Implement the Port of Long Beach Clean Trucks Program

T-5: Develop an Electric Vehicle Infrastructure Master Plan

T-6: Increase employment and residential development along primary transit corridors

T-7: Update the Transportation Demand Management Ordinance

T-8: Increase the density and mixing of land uses

T-9: Integrate SB 743 planning with the CAAP process

**Waste**

W-1: Ensure compliance with state law requirements for multifamily and commercial property recycling programs

W-2: Develop an organic waste collection program for City-serviced accounts

W-3: Partner with private waste haulers to expand organic waste collection community-wide

W-4: Identify organic waste management options

As discussed previously, the City has established a target to reduce per-service population (i.e., residents plus employees) GHG emissions from a baseline of approximately 4.5 MT CO<sub>2</sub>e/SP in 2015 to 3.04 MT CO<sub>2</sub>e/SP (2.0 MMT CO<sub>2</sub>e) in 2030. The City has also established an aspirational goal of achieving net carbon neutrality by 2045. These CAAP Actions, combined with reductions from State and federal initiatives, are estimated to result in the City meeting and slightly exceeding the 2030 target. As shown in Figure 3-4, 2030 Reduction Target, CAAP Actions from the Building and Energy, Transportation, and Waste sectors are cumulatively estimated to achieve reductions totaling approximately 363,250 MT CO<sub>2</sub>e, which represent emissions levels of 2.78 MT CO<sub>2</sub>e/SP in 2030, compared to the target of 3.04 MT CO<sub>2</sub>e/SP and the BAU value of 3.3 MT CO<sub>2</sub>e/SP without the CAAP. This figure also shows the distribution of emissions by sector in the 2030 forecasts and the 2030 mitigated scenario, which reflects implementation of the priority actions.

### 3.4.4 Climate Adaptation Planning

In addition to the CAAP Actions described above to reduce GHG emissions, the proposed CAAP also identifies 40 Adaptation Actions, which are intended to improve the ability of Long Beach and its residents and businesses to adapt to climate change and lessen related negative impacts now and in the future. Adaptation Actions are organized into four climate impacts: extreme heat, air quality, drought, and flooding due to sea level rise. Each action identifies an implementation lead and partners, general timeline (short, medium, and long) and City costs (low, medium, and high), co-benefits, implementing sub-actions, and an equity strategy. Appendix F of the proposed CAAP includes a preliminary set of potential performance metrics associated with each action that will be considered. These will be used to measure implementation outcomes related to reducing the impacts of climate change on the community, associated co-benefits, and equity considerations, and will complement GHG monitoring as outlined in the Implementation and Monitoring chapter of the proposed CAAP.

The Adaptation Actions do not include any physical improvements at this time but rather are intended to improve the City's ability to adapt to climate change by incorporating specific strategies and improvements into future plans and projects, and by identifying and prioritizing locations and assets at the greatest risk of climate change impacts based on how soon and how severe impacts are anticipated, and generally envisioning the types of projects that may be needed to lessen climate change impacts at particular locations. However, additional analysis will be needed to develop specific adaptation approaches and projects at specific locations.

The Adaptation Actions include strategies to withstand rising temperatures and associated impacts related to worsening air quality, flooding associated with sea level rise and intense storm events, and drought. Extreme Heat Actions include new requirements such as cool roofs and reflective surfaces to reduce temperatures and save energy, tree plantings in communities that are most vulnerable to higher temperatures, and enhancing access to the cooling centers and to the coast. Air Quality Actions include strategies to reduce air pollution from a variety of sources such as buses, landscaping equipment, the Long Beach Airport, and food transportation. The Drought Actions include continuation of programs to meet and exceed state water use efficiency targets as well as new actions to increase the supply and use of recycled water, expand green infrastructure and streets, and increase the capture and storage of rainfall. The Sea Level Rise and Flooding Actions include strategies to address existing and future impacts by establishing a flood impacts monitoring

program, incorporating sea level rise into City policies, plans, and programs, investing in resilient infrastructure and buildings, and striving to preserve coastal access and recreation through elevation, retrofit or relocation of critical infrastructure. The Adaptation Actions in the CAAP are described for citywide implementation at a programmatic level, and the CAAP Checklist translates those actions into recommendations for strategies that may be incorporated at the project level for future developments. The analysis contained in this Draft SEIR considers adoption of the CAAP at a programmatic level, and all future discretionary projects that implement Adaptation Actions would undergo project-level CEQA review as required.

The following Adaptation Actions are identified in the proposed CAAP:

### **Extreme Heat Actions**

EH-1: Increase presence of cool roofs and cool walls

EH-2: Increase the presence of reflective streets, cool surfaces, and shade canopies

EH-3: Enhance and expand urban forest cover and vegetation

EH-4: Install additional water fountains and other actions to increase public access to water

EH-5: Identify future vulnerability potential for power outages related to extreme heat and develop plans to prevent such outages

EH-6: Enhance and expand the accessibility of cooling centers

EH-7: Provide bus shelter amenities

EH-8: Improve beach and coastal transit access during extreme heat events

### **Air Quality Actions**

AQ-1: Incentivize installation of photocatalytic tiles

AQ-2: Encourage urban agriculture practices that reduce air quality pollution

AQ-3: Support the development of the Long Beach Airport Sustainability Plan

AQ-4: Electrify small local emitters, such as lawn and garden equipment, outdoor power equipment, and others

AQ-5: Work with Long Beach United School District (LBUSD) to support school bus electrification

AQ-6: Implement the Port of Long Beach Clean Air Action Plan

AQ-7: Increase monitoring and regulation of oil extraction and refining process

### **Drought Actions**

DRT-1: Continue development and implementation of water use efficiency programs and implement additional water conservation programs

DRT-2: Enhance outreach and education related to water conservation

DRT-3: Expand usage of green infrastructure and green streets

DRT-4: Expand usage of recycled water and greywater for non-potable use

DRT-5: Incorporate increased rainfall capture and other actions to maximize local water supplies and offset imported water

### **Sea Level Rise and Flooding**

FLD-1: Update and augment floodplain regulations as necessary

FLD-2: Incorporate sea level rise language into citywide plans, policies, and regulations

FLD-3: Establish a flood impacts monitoring program

FLD-4: Incorporate adaptation into City lease negotiations

FLD-5: Update the City's existing Stormwater Management Plan

FLD-6: Conduct citywide beach stabilization study

FLD-7: Review and conduct studies of combined riverine/coastal flooding and increased severity of rainfall events on watershed flooding

FLD-8: Enhance dunes

FLD-9: Inventory and flood-proof vulnerable sewer pump stations

FLD-10: Relocate/elevate critical infrastructure

FLD-11: Elevate riverine levees

FLD-12: Expand beach nourishment

FLD-13: Construct living shoreline/berm

FLD-14: Elevate street hardscapes

FLD-15: Elevate streets/pathways

FLD-16: Retrofit/extend sea wall

FLD-17: Retreat/realign parking lots

FLD-18: Extend/upgrade existing seawalls

FLD-19: Investigate feasibility of managed retreat

FLD-20: Evaluate feasibility of storm surge barrier at Alamitos Bay

### **3.4.5 Safety Element Update**

As described in Section 3.3.1.2 above, the proposed project also includes amendments to and combining of the current Public Safety and Seismic Safety Elements to incorporate recognition of climate change and resiliency, consistent with the climate adaptation and resiliency considerations and strategies included in the proposed CAAP. These amendments necessary to provide an updated and consolidated Safety Element represent a planning action intended to comply with State law. The proposed Draft Safety Element Update is provided in Appendix C of this Draft SEIR.

### 3.5 PROJECT OBJECTIVES

The proposed CAAP, as Mitigation Measure GHG-1 of the 2019 Certified Program EIR, helps the City achieve the objectives identified for the Land Use and Urban Design Elements Project and establishes several project objectives, which would help reduce citywide GHG emissions (refer to Chapters 4.0 and 6.0 of the proposed CAAP) and improve the ability of Long Beach and its residents and businesses to adapt to climate change. In addition, amendments to provide the updated and consolidated Safety Element also establish objectives to ensure the City's policies related to safety incorporate climate adaptation and resiliency. For CEQA purposes, the following primary objectives have been established to aid decision-makers in their review of the project and its associated environmental impacts:

1. Provide a goal post against which the cumulative progress of the City's GHG reduction actions over time can be evaluated.
2. Comply with requirements of the Global Covenant of Mayors, to which the City of Long of Beach has been a signatory since 2015.
3. Demonstrate the City's commitment to global efforts to address climate change.
4. Illustrate the relationship between the City's reduction target and compliance with State mandates for cities related to GHG reduction.
5. Demonstrate a level of GHG emissions below which Long Beach would have less than cumulatively considerable GHG impacts for future environmental review projects.
6. Create a plan that will help Long Beach realize the following: low carbon, climate resilient buildings and neighborhoods; safe and adaptable infrastructure; protected and enhanced natural systems; a healthy, resilient and ready population; and residents and businesses with minimized carbon footprint.
7. Incorporate climate adaptation and resiliency considerations and strategies consistent with the CAAP in the updated and consolidated General Plan Safety Element in order to ensure the City's goals and policies related to safety recognize and address climate impacts including those related to extreme heat, drought, and flooding occurrences.
8. Comply with the Mitigation Measure (MM) GHG-1 in the Certified General Plan Land Use and Urban Design Elements Program EIR (2019), which required the City to adopt a greenhouse gas (GHG) Reduction Plan or Climate Action and Adaptation Plan (CAAP).

### 3.6 DISCRETIONARY ACTIONS, PERMITS, AND OTHER APPROVALS

This Draft SEIR analyzes and documents the environmental impacts of the proposed project and all discretionary actions associated with the project. In accordance with Sections 15050 and 15367 of the *State CEQA Guidelines*, the City is the designated Lead Agency for the proposed project and has principal authority and jurisdiction for CEQA actions and project approval. Responsible Agencies are those agencies that have jurisdiction or authority over one or more aspects associated with the

development of a proposed project and/or mitigation. Trustee Agencies are State agencies that have jurisdiction by law over natural resources affected by a proposed project.

The discretionary actions to be considered by the City as a part of the proposed project include:

- **Approval of the Proposed CAAP:** The project would require approval of the proposed CAAP.
- **Adoption of the Safety Element Update.** The project would require approval of the proposed text amendments and adoption of the updated Safety Element.
- **Certification of the SEIR:** The project would require certification of the SEIR and adoption of the Mitigation Monitoring and Reporting Program.

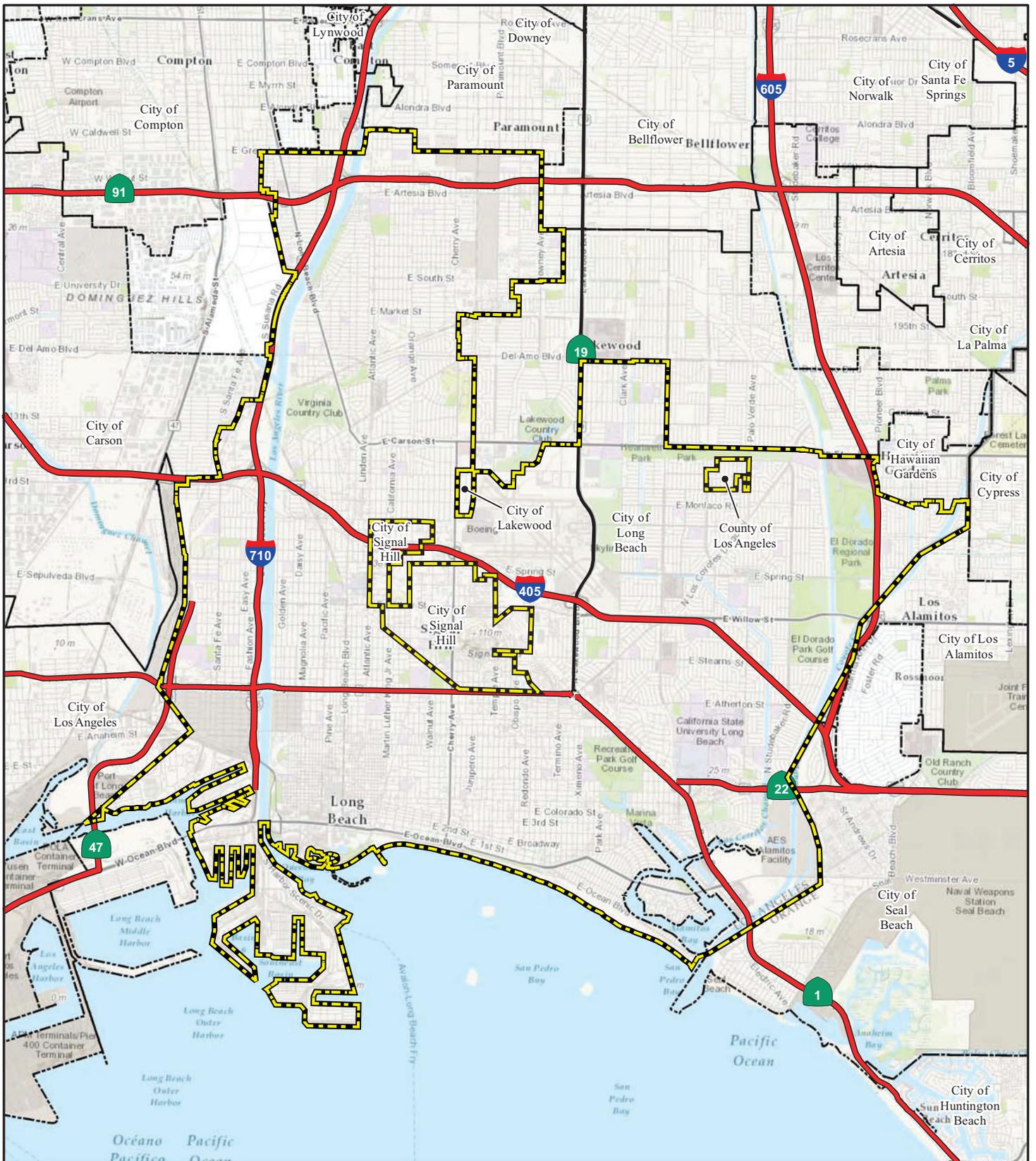


FIGURE 3-1

**LSA**

**LEGEND**

 Project Area (City of Long Beach)



SOURCE: Bing Maps (c. 2008); ESRI (2008)

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*Climate Action and Adaptation Plan  
and Safety Element Update EIR*

**Project Location**

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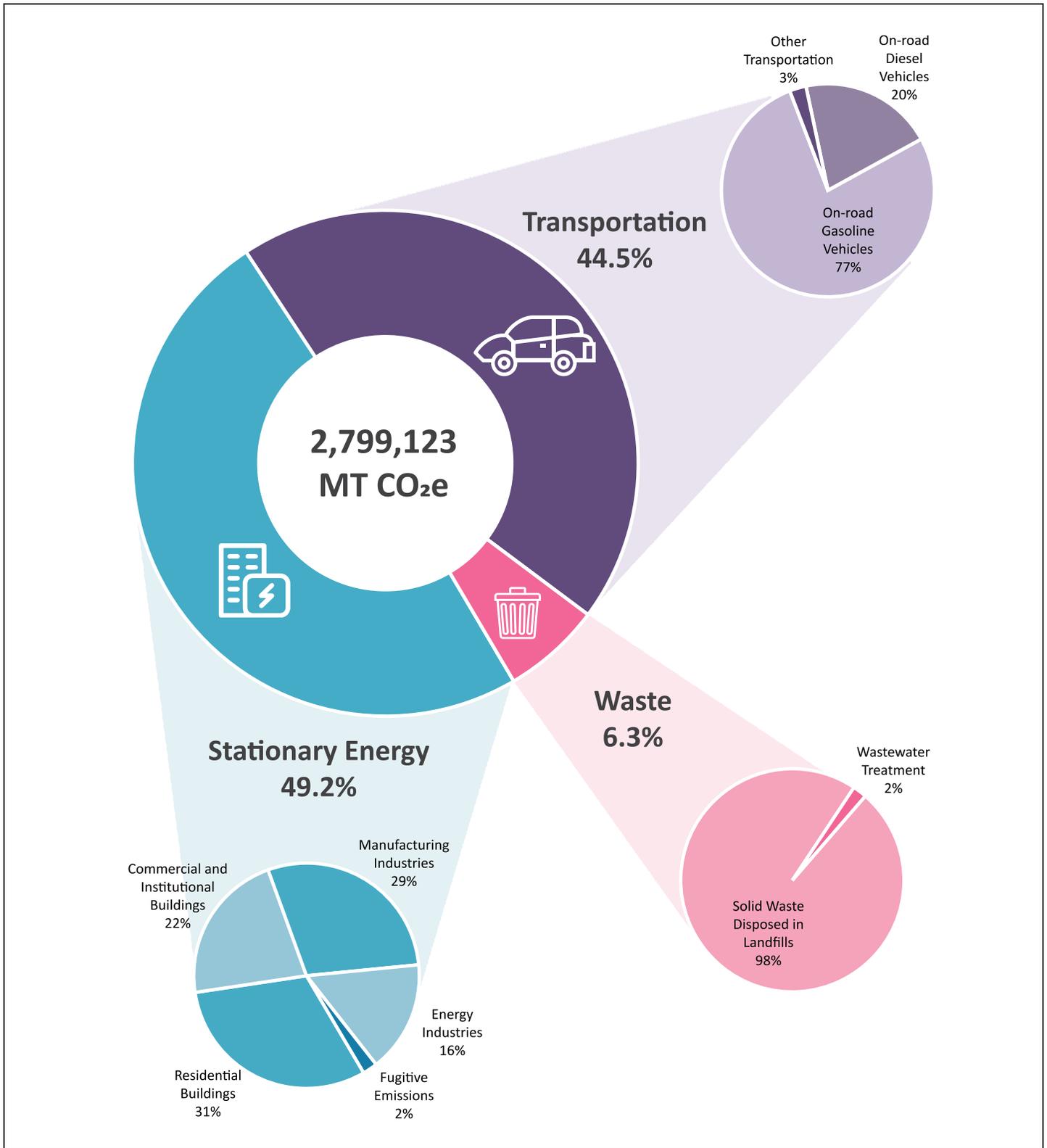
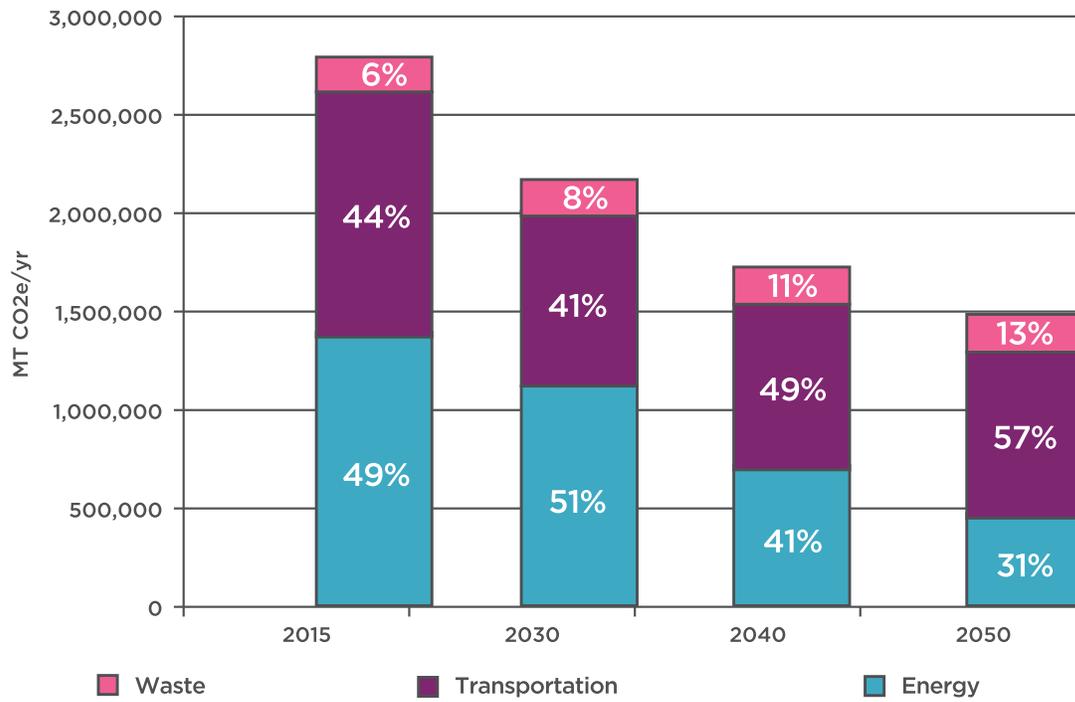


FIGURE 3-2



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### Business-as-Usual Emissions Forecasts 2015 – 2050



### Emissions Targets versus Business-as-Usual Forecasts 2015-2050

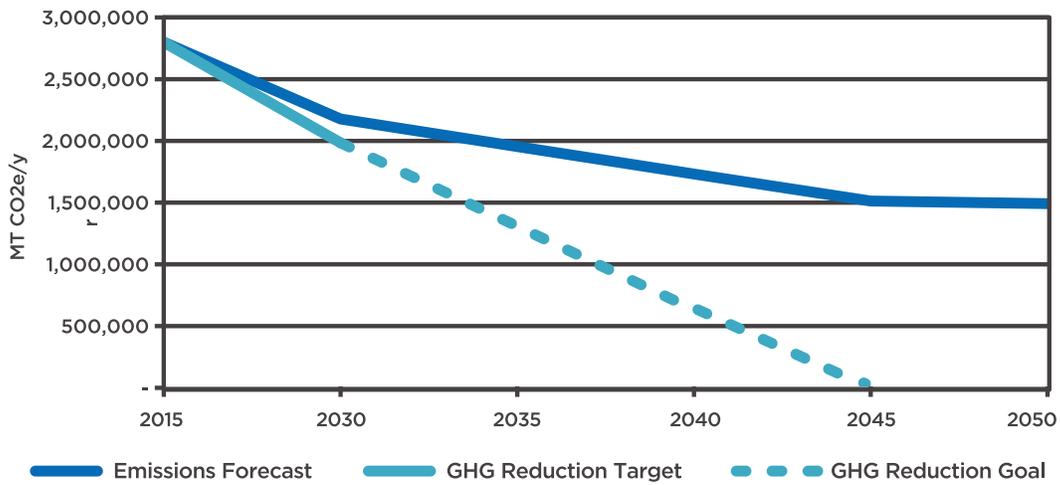
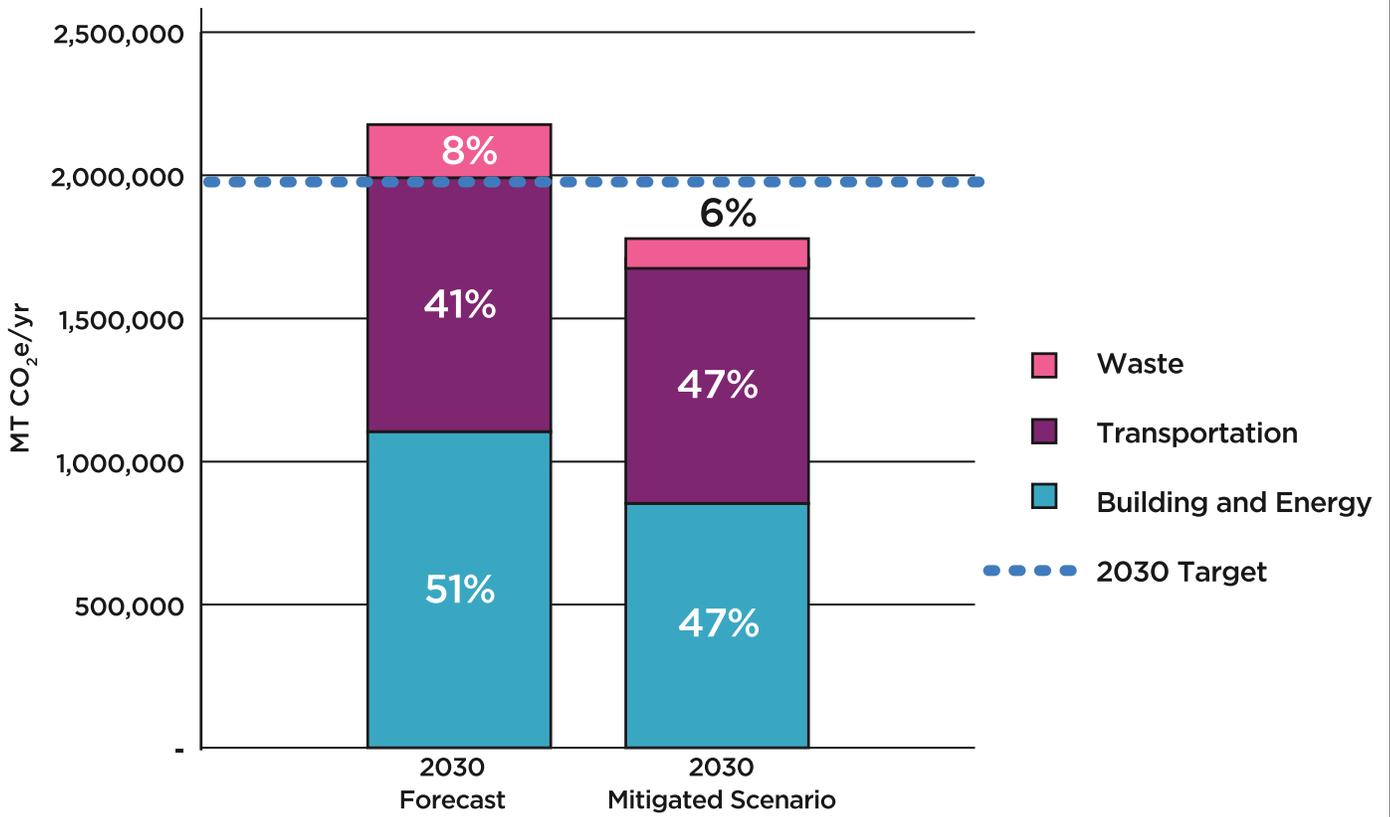


FIGURE 3-3

Climate Action and Adaptation Plan  
and Safety Element Update EIR

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## 4.0 EXISTING ENVIRONMENTAL SETTING, ENVIRONMENTAL ANALYSIS, IMPACTS, AND MITIGATION MEASURES

The following chapter contains three sections, each of which addresses one environmental topic outlined in Appendix G of the Guidelines for the California Environmental Quality Act (*State CEQA Guidelines*) (California Code of Regulations [CCR] Title 14, Chapter 3, Sections 15000–15397).

For each environmental topic analyzed, the Draft Subsequent Environmental Impact Report (SEIR) includes a detailed explanation of the existing conditions, thresholds of significance that will be applied to determine whether the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update (proposed project) impacts are significant or less than significant, analysis of the environmental impacts, and a determination of whether the proposed project would have a significant impact if implemented. A “significant impact” or “significant effect” means “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (14 CCR 15382). Each environmental topic section in Chapter 4.0 also includes a discussion of the cumulative effects of the project when considered in combination with other projects causing related impacts, as required by Section 15130 of the *State CEQA Guidelines*.

Each of the sections is organized into subsections, as follows:

- **Introduction** briefly describes the topics and issues covered in the section.
- **Scoping Process** describes the comment letters received during the public review period of the Initial Study/Notice of Preparation (IS/NOP) that are related to the topic.
- **Existing Environmental Setting** describes the physical conditions that exist at the present time that may influence or affect the issue under investigation. This section focuses on physical site characteristics that are relevant to the environmental topic being analyzed.
- **Regulatory Setting** lists and discusses the laws, ordinances, regulations, and policies that relate to the specific environmental topic and how they apply to the proposed project.
- **Methodology** describes the approach and methods employed to complete the environmental analysis for the issue under investigation.
- **Thresholds of Significance** provides the thresholds that are the basis of the conclusions of significance, which are primarily the criteria in Appendix G of the *State CEQA Guidelines*.
- **Project Impacts** describes the potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented. Evidence is presented to show the cause-and-effect relationship between the proposed project and potential changes in the environment. The exact magnitude, duration, extent, frequency, and range or other parameters of a potential impact are ascertained to the extent feasible to determine whether impacts may be significant. In accordance with CEQA, potential project impacts, if any, are classified as follows for each of the environmental topics discussed in this Draft EIR.

- **Significant Adverse Impact.** Significant adverse impacts are those that cannot be fully mitigated or avoided. If the project is approved, decision makers are required to adopt a statement of overriding considerations pursuant to *State CEQA Guidelines* Section 15093 explaining why the project benefits outweigh the unavoidable adverse environmental effects caused by these significant adverse environmental impacts.
- **Less than Significant Impact with Mitigation Incorporated.** This classification refers to significant environmental impacts that can be feasibly mitigated or avoided. If the project is approved, decision makers are required to make findings pursuant to *State CEQA Guidelines* Section 15091 that adverse significant impacts have been mitigated to the maximum extent feasible through implementation of mitigation measures.
- **Less than Significant Impact.** Less than significant impacts are environmental impacts that have been identified but are not significant. No mitigation is required for less than significant impacts.
- **No Impact.** A “no impact” determination is made when the proposed project is found to have no environmental impact.
- **Level of Significance Prior to Mitigation** describes the significance of potential impacts prior to implementation of mitigation measures. No potential significant unavoidable impacts were identified for the proposed project, and no mitigation was required.
- **Compliance Measures and Project Design Features:**
  - Compliance Measures are regulations or standards applicable to the project.
  - Project Design Features (PDFs) are specific components of the proposed project that have been incorporated to reduce potential environmental effects. PDFs were not required for the proposed project as no physical development is included or entitled by the proposed project.
- **Cumulative Impacts** refers to potential environmental changes to the existing physical conditions that may occur as a result of project implementation together with all other reasonably foreseeable, planned, and approved future projects producing related impacts. Section 15355 of the *State CEQA Guidelines* defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Cumulative impacts may result from individually minor but collectively significant projects taking place over a period of time. For each of the environmental topics considered in this Draft EIR, the geographic scope of the cumulative analysis is defined. For example, the geographic scope of the cumulative analysis for potential cumulative land use and planning impacts includes all areas within the entire 50 square miles within the limits of the City of Long Beach (referred to the “planning area” throughout this Draft SEIR).

## 4.1 AESTHETICS

This section provides a discussion of the existing visual and aesthetic resources in the planning area and in the surrounding area and evaluates the potential for changes in aesthetic character that could result from implementation of the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update Project (proposed project). This section also evaluates the potential loss of existing visual resources, effects on public views, visual compatibility with existing uses, and light and glare impacts. As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element Update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Therefore, the analysis in this Subsequent Environmental Impact Report (SEIR) focuses on the potential impacts from the measures included in the CAAP Consistency Review Checklist (CAAP Checklist) required for future discretionary projects, as well as the potential programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.1.1 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft SEIR. No comment letters included comments related to aesthetics.

### 4.1.2 Existing Environmental Setting

#### 4.1.2.1 Visual Resources

**Scenic Resources.** Scenic resources are natural or man-made features that are aesthetically pleasing and contribute to the definition of a community. Examples of scenic resources include trees and landscaping, rock outcroppings, historic buildings, and public art. Scenic resources within the planning area include the Pacific Ocean, the Port of Long Beach, the San Gabriel, San Bernardino, and Santa Ana Mountains, and the Los Cerritos Wetlands. Views of the San Gabriel Mountains can be seen from various points throughout the City, with the most predominant views being from the northern areas of the City and from higher elevations. Distant views of the San Bernardino and Santa Ana Mountains can be seen from higher elevations in the City. Views of the Pacific Ocean, including Alamitos Bay, Rainbow Harbor, and the Port of Long Beach, can be seen along the City's shoreline and from higher elevations in the City. Views of the Los Cerritos Wetlands are visible from the Southeast Area Specific Plan (SEASP) planning area and provide expansive views of native wetlands vegetation, including facilities associated with oil operations such as oil derricks and mechanical buildings that are part of the overall landscape. However, the most prominent scenic resources within the planning area are the Pacific Ocean and the associated beaches and marinas located along the City's coastline. Examples of beaches and marinas in the City include, but are not limited to, Alamitos Beach, Alamitos Bay-Long Beach Marina, Belmont Shore Beach, Colorado Lagoon Park and Beach, Granada Beach and Rosie's Dog Beach, Long Beach City Beach, Mother's Beach, and Rainbow Harbor and Marina.

**Scenic Vistas.** As previously stated, scenic vistas are viewpoints that provide expansive views of a highly valued landscape for the public's benefit. Scenic vistas within the planning area include views of the Pacific Ocean, the Los Cerritos Wetlands, the Jack Dunster Marine Biological Reserve, Golden Shore Marine Biological Reserve Park, and the Dominguez Gap Wetlands. Views of distant mountain ranges, such as the San Gabriel, San Bernardino, and Santa Ana Mountains, also constitute scenic vistas within the planning area. However, the Pacific Ocean is the most prominent visual asset in the planning area.

**Sensitive View.** As previously stated, sensitive views are generally those associated with designated vantage points and public recreational uses, but the term can be more broadly applied to encompass any valued public vantage point.

**Scenic Corridors.** As previously stated, scenic corridors are defined as roadways and thoroughfares that provide expansive views of natural landscapes and attractive man-made developments. According to the California Department of Transportation (Caltrans) Scenic Highway Mapping System, there are no State-designated scenic highways in the planning area; however, Pacific Coast Highway (PCH) is considered to be an Eligible State Scenic Highway.<sup>1</sup> Existing scenic corridors and routes in the City are designated in the City's General Plan Urban Design Element (UDE) for the purpose of preserving scenic views afforded to pedestrians, motorists, and bicyclists traveling throughout the City. Specifically, the UDE identifies Ocean Boulevard and Livingston Drive as a designated scenic route and notes this system will be expanded by the year 2030 to include Ocean Boulevard on the Belmont Peninsula, the Promenade in Downtown, the Los Angeles River and San Gabriel River corridors, Appian Way along the Colorado Lagoon, Marine Stadium, Studebaker Road, the approach road to Rancho Los Cerritos, and the entire stretch of Pacific Coast Highway.

**Visual Character.** The planning area includes the entire 50 square miles within the limits of the City that are framed by natural and man-made features. Most notably, the Pacific Ocean frames the southern waterfront edge of the City. The San Gabriel River and Coyote Creek define the eastern edge of the planning area; Port-related facilities, the Los Angeles River, and developed areas form the eastern edge of the City; and developed areas form the northern edge of the City.

The planning area is almost entirely developed with a mix of residential, commercial, industrial, recreational, and institutional uses. The majority of the planning area is characterized by low-to-moderate-density residential uses (approximately one- to two-stories in height) located throughout the City; however, the Downtown and Port areas serve as visual focal points for inland and coastal areas of the City. In addition, the entertainment activities at Rainbow Harbor combine with the visual landscapes of the Downtown and Port areas to provide a central visual point of interest for viewers. Views of neighborhoods surrounding the Downtown areas are typical of those in suburban areas with auto-oriented commercial centers.

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<sup>1</sup> California Department of Transportation (Caltrans). 2021. Scenic Highways. California State Scenic Highways. Website: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways> (accessed August 18, 2021).

**Neighborhood Visual Character.** The visual character of the planning area is variable depending on the viewer's location within the City. Generally, the planning area can be defined by its community plan areas, which vary by the mix of land uses and architectural character. The planning areas are comprised of the following nine primary community plan areas: North Long Beach, Bixby Knolls, Westside and Wrigley, Eastside, Central, Traffic Circle, Downtown, Midshore, and Southeast. The neighborhood visual character of each of these community plan areas is summarized below. The structures in each neighborhood vary in height, scale, massing, and architectural features, with no distinguishable or consistent architectural theme across the entire City.

- 1. North Long Beach.** The North Long Beach area is located west of the Interstate 710 (I-710) and includes the areas located west of Downey Avenue and north of the Union Pacific Railroad (UPRR). This area is predominantly characterized by low-scale development largely consisting of residential, commercial, industrial, and institutional uses. The residential uses in this area are typically one- and two-story single-family dwellings and multifamily dwellings generally not exceeding four stories. Commercial uses along major corridors, such as Long Beach Boulevard and Atlantic Avenue, maintain varied setbacks. Newer commercial/retail buildings along these corridors typically have larger setbacks for parking areas to buffer the buildings from the roadway, while older buildings are typically situated at the right-of-way limits with no setbacks. The areas in the vicinity of Paramount Boulevard and South Street consist of low-density industrial uses and associated equipment storage areas.
- 2. Bixby Knolls.** The Bixby Knolls area consists of the California Heights, Los Cerritos, Bixby Knolls, Bixby Highlands, Scherer Park, Ridgewood Heights, and Ranton Circle neighborhoods. This community is home to several historic residential resources dating from the 1920s and 1940s. The area also includes a retail corridor along Atlantic Avenue between San Antonio Drive and Interstate 405 (I-405). This corridor is predominantly characterized by retail shops with large window facades, sidewalks on both sides of the street, and traffic-calming features (e.g., landscaped medians) that combine to add to the pedestrian-friendly nature and aesthetic character of this arterial within the Bixby Knolls area. While newer auto-oriented commercial uses are present along this corridor (near 45th Street and Atlantic Avenue), the historic character and scale of existing residential uses largely remains intact between Antonio Drive and East Bixby Road.
- 3. Westside and Wrigley.** The Westside neighborhood is located on the west side of the I-710 and includes the Westside and Arlington neighborhoods. This neighborhood is characterized by low-density development comprised of one- and two-story residential and commercial buildings. The majority of the housing units in this area are single-family detached homes, with many of these homes having been constructed in the 1920s and 1940s. The residential and commercial structures in this area maintain remnants of the architecture and styles of the era, but the intactness of their historic value is highly variable. The Century Villages at Cabrillo (CVC) development is located north of PCH and east of State Route 103 (SR-103), the Terminal Island Freeway. The CVC is a 27-acre multifamily development and includes buildings that are approximately four stories designed in a modern style of architecture, which is a variation from the traditional architectural style in this area. The CVC provides transitional and permanent supportive housing for children, veterans suffering from post-traumatic stress disorder (PTSD),

aging veterans, and other homeless persons with dual diagnosis, such as substance abuse and mental illness.

The Wrigley neighborhood is located on the east side of the I-710 and west of Long Beach Boulevard. Having been constructed during the 1950s, this neighborhood is largely characterized by low-density post-World War II housing developments with mature tree-lined parkways.

- 4. Eastside.** The Eastside area is the largest community plan area in the City and is bound by the Cities of Los Alamitos and Hawaiian Gardens to the east, the City of Lakewood to the north, and PCH and 7th Street to the south. Predominant uses in this area include low-density housing, shopping centers, schools, religious institutions, and parks. The Eastside area also contains the 800-acre El Dorado Regional Park and the California State University, Long Beach campus. The residential neighborhoods in this area are characterized by low-density (one- and two-story) post-World War II suburban developments with mature tree-lined parkways. Auto-oriented commercial centers are located along major corridors (i.e., Bellflower Boulevard and Spring Street) to serve the surrounding homes and businesses within the Eastside area. The low-density scale and post-WWII architecture of the residential dwellings is largely consistent throughout Eastside. The commercial centers in the Eastside area are diverse in their architectural styles; however, the concentration of similarly scaled commercial developments along major corridors provides a pattern of development that maintains consistency in this neighborhood.
- 5. Central.** The Central area largely encompasses the area around the intersection of Orange Avenue and PCH and includes the Central Area West, Central Area East, and Washington School neighborhoods. The primary uses in this community plan area are residential and commercial. The residential dwellings in this area include a mix of single-family and multifamily dwellings of varied time periods and architecture. The business corridor along Anaheim Street in the Central area is home to Cambodia Town, which is largely characterized by one-story commercial uses consisting of both auto- and pedestrian-oriented development patterns. In addition to these residential and commercial uses, the Central area is characterized by several historic resources; however, the most prominent historic resource within the Central area is the Minerva Park Place Historic District. This Historic District is located along Minerva Park near the intersection of Gaviota Avenue and 11th Street. Homes lining this street are reflective of the Spanish Colonial Revival architectural style and were built as part of a single development project in 1925.
- 6. Traffic Circle.** The Traffic Circle area is comprised of a large multi-lane roundabout at the intersection of Lakewood Boulevard and Los Coyotes Diagonal. This area is located south of the Long Beach Airport and includes the Stearns Park, Alamitos Ridge, and Bryant School neighborhoods. The roundabout consists of a park-like setting with mature trees and grass areas comprising the central landscaped median divider island. One-story commercial uses surround the traffic circle, while mid-rise multifamily residential uses are concentrated east of the roundabout on PCH. Suburban single-family residential neighborhoods and auto-oriented commercial centers are located further north and southeast of the Traffic Circle. Residential uses located south of the Traffic Circle were generally constructed in the 1920s and 1930s, while the residential uses located further north were constructed in the 1940s and 1950s.

- 7. Downtown.** The Downtown area is the primary entertainment, commercial, and employment center in the City. This area includes the Willmore City, West End, East Village, Promenade, North Pine, and the Downtown Shoreline neighborhoods. The neighborhoods north of Ocean Boulevard within this plan area contain historic neighborhoods connected to early Long Beach history. The intersection of 10th Street and Magnolia Avenue forms the center of the Willmore City neighborhood in the Downtown area. This neighborhood includes the Willmore/Drake Historic District, which includes the American Colony Tract developed by William Willmore, the second tract of homes developed in the City. The Downtown skyline and entertainment uses at the Pike at Rainbow Harbor are points of visual interest for both nearby and distant viewers. Many of the north-south roadways in the City terminate at Ocean Boulevard in the Downtown area. Commercial and entertainment venues are located throughout the area, with a concentration of these types of uses on Pine Avenue and the Pike at Rainbow Harbor. Building heights vary in this community plan area and are substantially higher than the other areas within the City. The four tallest buildings in the downtown area range from 20 to 30 floors and consist of office and high-density residential buildings along Ocean Boulevard, including City Hall. This area maintains its urbanized downtown character through minimal building setbacks, mixed-use buildings, and transit-oriented development.
- 8. Midshore.** The Midshore area is comprised of Alamitos Beach, Rose Park, Franklin School, Bluff Heights, and Bluff Park. Midshore contains a mix of low-density historic residential districts (bungalows developed in the 1920s); however, many of these homes were replaced with newer high-density residential units between the 1960s and 1980s. Additional high-rise multifamily developments are located along Ocean Boulevard. Generally, these high-rise developments range from 10- to-20 stories in height. While these developments have been developed to significantly greater heights than surrounding residential uses, these buildings are generally lower in height and scale than similar uses in the adjacent Downtown area. Commercial uses in this area are concentrated along east-west corridors (e.g., Broadway, 3rd Street, 4th Street, and 7th Street). These commercial areas contain a mix of historic and contemporary architecture. The overall height of commercial buildings within the area ranges from one- to two-stories, with a general increase in building heights on the south side of Ocean Boulevard.
- 9. Southeast.** The Southeast area is comprised of Alamitos Heights, Belmont Heights, Belmont Shore, Belmont Park, Naples, Peninsula, Recreation Park, University Park Estates, and the SEASP neighborhoods. The Southeast area is characterized by residential, commercial, and maritime uses. The Alamitos Bay and supporting uses are largely concentrated in the southern portion of this area and maintain a mix of commercial uses among other establishments to support the maritime activities in the bay. The Belmont Shore area is comprised of low-density commercial and residential uses, with scattered entertainment and office uses. The corridor along 2nd Street serves as a popular designation as it contains a variety of retail and restaurant uses within a pedestrian-oriented streetscape. In addition to development along 2nd Street, the Naples neighborhood is unique within the Southeast area as it is comprised of residential uses and three artificial islands connected by high-arching bridges. Due to the proximity of the homes within this neighborhood to the water, boat docks and maritime uses also serve to characterize the visual character of the Naples neighborhood. The Southeast area is also characterized by large open space and recreational uses, predominantly along 7th Street and PCH, and the SEASP

neighborhood. The SEASP area is generally comprised of low-density, auto-dominated commercial areas, the Los Cerritos Wetlands, the Alamitos Bay Marina, and the Alamitos Bay Landing. As evidenced above, development in the Southeast community plan area varies by type and architectural style, but largely remains at a one- or two-story scale.

**Existing Lighting and Glare.** Glare results from reflected light caused by sunlight or artificial light reflecting from highly finished surfaces (e.g., window glass, mirrored finishes, or brightly colored surfaces). Land uses that are typically sensitive to excess light and glare include residential, hospitals, senior housing, and other types of uses where excessive light and glare may disrupt sleep. In addition, light and glare may interfere with the vision of drivers.

Nighttime lighting that is present in the City consists of streetlights and vehicle headlights on nearby roadways; building facade and interior lighting; and pole-mounted lighting in the parking areas. However, it should be noted that the most significant nighttime lighting present in the City is associated with regional-serving uses such as the Port of Long Beach, the Long Beach Airport, and entertainment activities at the Pike at Rainbow Harbor. Because the planning area includes the entire 50 square miles within the City limits, the planning area itself also contains significant nighttime lighting associated with the operations of existing land uses. Existing uses in the City also consist of building facades that use reflective materials, such as glass and mirror, which also contribute to glare within the City.

**Existing Shade/Shadow.** Mid- to high-rise buildings located throughout the planning area are the primary source of prolonged shadows within the planning area. As previously stated, shadow-sensitive uses include routinely used outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses.

### 4.1.3 Regulatory Setting

#### 4.1.3.1 Federal Regulations

No federal policies or regulations pertaining to aesthetics are applicable to the proposed project.

#### 4.1.3.2 State Regulations

**Caltrans Scenic Highway Program.** The California Department of Transportation (Caltrans) Scenic Highway Program protects the natural scenic beauty of the State's highways and corridors through its designated scenic highways throughout the State. Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Other considerations given to a scenic highway designation include how much of the natural landscape a traveler may see and the extent to which visual intrusions degrade the scenic corridor.

As described in Threshold 4.1.1 below, there are no Caltrans officially designated scenic highways within the planning area; however, PCH (State Route 1 or SR-1) is eligible for designation.

**California Coastal Act.** The California Coastal Act (CCA; Public Resources Code [PRC] 30000) of 1976 was created to (1) protect, maintain, and, where feasible, enhance and restore the overall quality of the California Coastal Zone environment and its natural and manmade resources; (2) ensure orderly,

balanced utilization and conservation of Coastal Zone resources, taking into account social and economic needs; (3) maximize public access to and along the coast and maximize public recreational opportunities in the Coastal Zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners; (4) ensure priority for coastal-dependent development over other development on the coast; and (5) encourage State and local cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses in the Coastal Zone.

The proposed project includes policies that apply to the entire area within the City's limits, including the Coastal Zone, which is regulated by the California Coastal Commission (CCC) under the CCA. Section 30251 of the CCA requires development to be located and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. Section 4.4, Land Use and Planning, of this Draft SEIR addresses the CCA requirements that pertain to aesthetics and are applicable to the proposed project.

**California Code, Public Resources Code Section 21099.** PRC Section 21099 requires the Office of Planning and Research (OPR) to develop revisions to the *State CEQA Guidelines* establishing criteria for determining the significance of transportation impacts of projects within transit priority areas, which are areas within 0.5 mile of a major transit stop. Such criteria should promote a reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Within transit priority areas, aesthetic impacts related to residential, mixed-use residential, or employment center projects on an infill site would not be considered significant impacts on the environment.

#### 4.1.3.3 Local Regulations

**City of Long Beach Land Use Element.** The City's Land Use Element (2019) formulated the following broad-range goals guiding land use in the City: manage growth, encourage economic development, revitalize the Downtown area, allow for the construction of new housing, encourage the development of affordable housing, emphasize strong neighborhoods, maintain existing public facilities, and maintain and/or improve the circulation system.

The Land Use Element (LUE) introduced the concept of "PlaceTypes," which replaced the prior approach of segregating property within the City through traditional land use designations and zoning classifications. The LUE establishes 14 primary PlaceTypes that divide the City into distinct neighborhoods, thus allowing for greater flexibility and a mix of compatible land uses within these areas. Each PlaceType is defined by unique land use, form, and character-defining goals, policies, and implementation strategies tailored specifically to the particular application of that PlaceType within the City. The following goals and policies related to visual resources are presented in the LUE:

**STRATEGY No. 1:** Support sustainable urban development patterns.

- **LU Policy 1-3:** Require sustainable design strategies to be integrated into public and private development projects.

- **LU Policy 1-5:** Encourage resources and processes that support sustainable development for adaptive reuse projects, as well as appropriate infill projects.

**STRATEGY No. 7:** Implement the major areas of change identified in this Land Use Plan (Map LU 20).

- **LU Policy 7-4:** Encourage degraded and abandoned buildings and properties to transition to more productive uses through adaptive reuse or new development.
- **LU Policy 7-8:** Ensure infill development is compatible with surrounding established and planned uses.
- **LU Policy 7-12:** Develop and implement a plan for SEASP that establishes the area as an important gateway and builds on residential neighborhoods that are complemented by businesses and commercial services, protects wetlands and local coastal habitat, and creates attractive streetscapes with buildings designed at appropriate scale and form.

**STRATEGY No. 8:** Enhance and improve the waterfront areas.

- **LU Policy 8-1:** Work with the community to reinvigorate the area around the Belmont Pool complex, Belmont Veterans Memorial Pier, and vicinity. Provide new connectivity to adjoining neighborhoods and increase visitor-serving amenities.
- **LU Policy 8-2:** Improve Alamitos Bay Landing to create a more enjoyable and successful place with additional coastal access, recreation and visitor-serving uses and design improvements to create a more pedestrian-friendly and attractive area.

**STRATEGY No. 9:** Protect and enhance established neighborhoods.

- **LU Policy 9-1:** Protect neighborhoods from the encroachment of incompatible activities or land uses that may have negative impacts on residential living environments.
- **LU Policy 9-2:** Enhance and improve neighborhoods through maintenance strategies and code enforcement.

**STRATEGY No. 19:** Provide a variety of park facilities, marinas, beaches and water bodies that meet the diverse needs and interests of the community.

- **LU Policy 19-1:** Develop and maintain a high-quality network of natural and urban parks and open spaces that meet the needs of families, young adults, seniors, children, and disabled individuals.
- **LU Policy 19-2:** Explore opportunities to create mini-parks and parklets within urbanized and growth areas of the City.

**STRATEGY No. 20:** Preserve, restore, and protect water bodies, natural areas, and wildlife habitats.

- **LU Policy 20-1:** Identify, acquire, protect and manage open spaces, sensitive biological resources, native habitat, and vegetative communities, including wetlands and uplands, to support wildlife species and wildlife linkages and to add ecological value and climate resiliency to the entire open space system.
- **LU Policy 20-12:** Ensure minimization of potential development impacts in accordance with policies for protection of natural resources in the Natural Resource Protection Policies section in the Appendix.

**STRATEGY No. 21:** Reconnect with nature’s systems and natural processes.

- **LU Policy 21-1:** Transition the Los Angeles and San Gabriel Rivers to more attractive, multi-functional, healthier environments that are easily accessible for passive recreation.
- **LU Policy 21-7:** Support opportunities for eco-tourism to celebrate and showcase natural assets such as the Los Cerritos Wetlands, the Los Angeles River, the Dominguez Gap Wetlands, and the beachfront, while creating a stronger tourism draw for the City.

**City of Long Beach Urban Design Element.** The City’s Urban Design Element (2019) provides an urban framework that addresses the varying aesthetic characteristics associated with the historic districts, residential neighborhoods, auto-oriented commercial centers, urbanized centers, and corridors located throughout the City. As the City continues to evolve, the Urban Design Element seeks to shape the urban environment by preserving the character of existing neighborhoods that define the City’s unique physical and aesthetic character while allowing for the continued evolution and improvement of the City in areas targeted for new development. The Urban Design Element (UDE) identifies vistas from high points, open locations, long corridors, and other similar places within the City including high grounds in mid-City and near Signal Hill looking toward Downtown and the coast, small promontories such as Los Cerritos hill, views across the Long Beach Skyline, airport tarmac, into golf courses and parks, along rivers and channels, and natural areas among others. Other important vistas identified in the UDE include the view along Alamitos, south to Villa Riviera; El Dorado Park; 3rd Street to the Port of Long Beach cranes; Ocean Boulevard; Bluff Park to the Pacific Ocean and Belmont Pier; Queensway Bay and Shoreline Park to the Queen Mary and cruise ships; the Downtown; the marinas; and Los Coyotes Diagonal to the distant San Gabriel Mountains. There are also dramatic views from the City of Signal Hill out and over Long Beach. While there is otherwise little topographic relief across the rest of the City, this assures that there are also many walkable and bikeable neighborhoods.

The UDE defines the physical aspects of the urban environment. Specifically, the UDE enhances the City’s PlaceTypes established in the Land Use Element (2019) by creating great places; improving the urban fabric, and public spaces; and defining edges, thoroughfares, and corridors. It is the City’s intention that creating great places would provide gathering spaces for community members to meet and provide a space for spontaneous activities to occur. By improving the urban fabric, the City would allow for new development that would complement the existing historical development while serving as a unique and distinctive feature of the City. The following goals and policies related to visual resources are presented in the UDE:

**STRATEGY No. 1:** Improve function and connectivity within neighborhoods and districts.

- **Policy UD 1-4:** Focus on building flexible design on ground floors to allow for active building frontages along corridors and at the street level.
- **Policy UD 1-5:** Prioritize and revitalize streetscapes in existing neighborhoods and targeted areas of change to provide well-lit streets, continuous sidewalks, consistent paving treatment and improved crosswalks at intersections.
- **Policy UD 1-6:** Identify streets that can be reconfigured to accommodate a variety of improvements, such as wider sidewalks with trees, bike paths, dedicated transit lanes, and landscape medians or curb extensions that make the streets more attractive and usable, consistent with Complete Streets principles.
- **Policy UD 1-7:** Employ timeless and durable materials in streetscape-designed amenities.

**STRATEGY No. 2:** Beautify and improve efficiency of corridors, gateways, and private and public spaces.

- **Policy UD 2-1:** Encourage a mix of building forms that embrace key historic resources of a neighborhood, encouraging architectural preservation and allowing for innovative renovations to older structures that will contribute to neighborhood character.
- **Policy UD 2-2:** Remove or screen visual pollution, including amortizing blighting conditions.
- **Policy UD 2-3:** Promote enhancement of the built environment through façade improvements, quality and context-sensitive infill development, and landscaping.
- **Policy UD 2-4:** Incorporate aesthetic elements such as pedestrian lighting, gateway landscape treatment, and ornamental landscaping throughout the City.
- **Policy UD 2-5:** Building elements and landscaping should screen items such as above-ground wires, communication boxes, back-flow preventers, and electric transformers that create visual distractions.
- **Policy UD 2-6:** Prioritize aesthetic considerations in the refinement of development standards to enhance the quality of new and existing developments within scenic areas and iconic sites.
- **Policy UD 2-7:** Identify, protect, and enhance designated scenic routes and iconic sites described in Public Spaces in this Chapter.
- **Policy UD 2-8:** Minimize visual clutter that detracts from an overall positive experience of a pedestrian. This would include regulating signage and the use of electronic signs and billboards (which may be appropriate in certain urban locations more than others).

- **Policy UD 2-9:** Encourage the use of aesthetically designed common trash enclosures in alleys for multiple businesses to create more attractive and walkable environments.

**STRATEGY No. 3:** Support distinct and attractive neighborhoods that are dynamic, active, and engaging.

- **Policy UD 3-1:** Preserve important neighborhood characteristics that create a sense of place, including buildings, landmarks, development patterns, design features and materials, streetscapes, signs, landscaping, public amenities, and open spaces.

**STRATEGY No. 5:** Integrate healthy living and sustainable design practices and opportunities throughout Long Beach.

- **Policy UD 5-4:** Preserve, rehabilitate, and integrate existing buildings into new development projects wherever feasible to encourage adaptive reuse, reduce waste, and maintain local character.

**STRATEGY No. 7:** Provide safe and secure neighborhoods, streets, buildings, parks, and plazas.

- **Policy UD 7-1:** Encourage public amenities and spaces in neighborhoods that allow for human contact, social activities, and community involvement to create an “eyes on the street” environment.

**STRATEGY No. 8:** Capitalize on urban design techniques that support economic development, prosperity, and the preservation of existing businesses throughout the community.

- **Policy UD 8-2:** Provide flexibility in building form and site design to encourage development that supports economic activity, entrepreneurship, and small businesses.

**STRATEGY No. 9:** Protect and enhance historic resources, distinguishing architecture and other features that contribute to the unique character and identity of each neighborhood.

- **Policy UD 9-1:** Identify and preserve historic buildings that enhance a historic district or are classified as a contributing structure.
- **Policy UD 9-2:** Protect districts that are part of the City’s history and possess a unique neighborhood character.
- **Policy UD 9-3:** Identify, preserve, and enhance scenic areas and iconic sites. See Map UD-1, Historic Sites.

**STRATEGY No. 10:** Celebrate diverse and unique cultural influences through architectural style, public art, public spaces, markets, fairs, and streetscape furnishings.

- **Policy UD 10-1:** Embrace the cultural diversity and heritage prevalent within Long Beach through public art, signage, and preservation of historic structures.

- **Policy UD 10-2:** Collaborate with regional artists, residents, and community members during the design process to infuse public art and cultural amenities into a project.

**STRATEGY No. 11:** Integrate public art into the urban fabric of the City.

- **Policy UD 11-1:** Incorporate public art and cultural amenities as community landmarks, encouraging public gathering and wayfinding, large and small.
- **Policy UD 11-2:** Utilize public art to enhance pedestrian environments, such as sidewalks, paseos, plazas, and alleys.
- **Policy UD 11-3:** Incorporate public art either as stand-alone installations or integrated into the design of other urban improvements, such as bridges, on-ramps, public building murals, paving, benches, and streetlights.
- **Policy UD 11-4:** Encourage the integration of localized art that add to the interest and nuance of the City's neighborhoods and showcase local identity and history.
- **Policy UD 11-5:** Consider opportunities to add whimsical elements to the environment by incorporating art into street furnishings.
- **Policy UD 11-6:** Encourage expression of cultural heritage within art and public spaces.

**STRATEGY No. 12:** Expand the unified sign program, within the Areas of Change identified in the Land Use Element, to help orient visitors throughout the community. Include freeway identification, gateways, directional signs, and informational signs.

- **Policy UD 12-1:** Focus investment on improving the appearance of entrances to the City on major boulevards so that wayfinding, landscape, and lighting are integrated into a cohesive design.
- **Policy UD 12-2:** Develop a comprehensive approach to wayfinding for visitors and tourists who will enter the City at these gateways, including neighborhood entry signs and murals.
- **Policy UD 12-4:** Emphasize gateways into Long Beach at freeways and important transportation hubs, such as the Long Beach Airport, Blue Line stations, the Long Beach Cruise Terminal, and at arrival points of distinct neighborhoods and districts, through landscaping, architecture, street furniture, and appropriate signage.
- **Policy UD 12-5:** Utilize neighborhood identity and wayfinding signage to establish an identity or theme within an existing neighborhood.
- **Policy UD 12-6:** Provide wayfinding signage on 7th Street to provide direction to attractions and neighborhoods from State Route 22 and the 605 and 710 Freeways.

**STRATEGY No. 13:** Create and maintain complete neighborhoods.

- **Policy UD 13-1:** Incentivize neighborhood improvements to increase walkable/bikeable access to daily needs, goods/services, and healthy foods, reduce blight, and create safe places to play and congregate.
- **Policy UD 13-4:** Implement streetscape improvements along the major cross-town corridors using a comprehensive approach to the corridor's sidewalks, landscaping, lighting, and amenities that reflect the individual neighborhoods along the corridor.

**STRATEGY No. 14:** Building types and forms should contribute to the PlaceType they are sited within and should address potential conflicts between neighboring PlaceTypes by implementing buffering measures and thoughtful design patterns.

- **Policy UD 14-1:** Properly scale a building's form (i.e., height and massing) to the primary street it fronts on (i.e., taller buildings on larger boulevards, smaller buildings on narrower streets).
- **Policy UD 14-2:** Acknowledge transitions between commercial and residential uses by requiring new development in higher-density centers and corridors to transition in height, massing, scale, and intensity in a thoughtful way to provide a buffer to lower density residential development.
- **Policy UD 14-3:** Allow new development projects to respond to their particular context and experiment with alternative development patterns while complementing their PlaceTypes.
- **Policy UD 14-5:** Promote commercial center and corridor development compatibility with adjacent residential uses, including ensuring that project design and function minimizes the potential adverse impacts of vehicle access, parking and loading facilities, building massing, signage, lighting, trash enclosures, and noise generating uses and areas.
- **Policy UD 14-6:** Ensure new development respects the privacy concerns of adjoining properties and buildings. Building, window, and balcony orientation should maximize views while preserving the privacy of surrounding neighbors by considering direct sight lines to windows and/or outdoor living spaces on neighboring lots. Minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary.
- **Policy UD 14-7:** Utilize building form and development strategies in conjunction with PlaceTypes and the interface between buildings and the streets (Strategy Nos. 34–35) to create a comprehensive urban fabric.
- **Policy UD 14-9:** In residential areas, support development which blends the form, mass, and profile of individual homes with the natural terrain and neighborhood context in order to minimize the visual impact on the site and surrounding neighborhood.

**STRATEGY No. 15:** Consider vacant parcels as infill opportunities.

- **Policy UD 15-2:** Promote infill projects that support the designated PlaceType and be appropriate in their use, scale, compactness of development, and design character with adjacent sites and nearby existing development.

**STRATEGY No. 17:** Define boundaries between natural areas, parks, and built areas.

- **Policy UD 17-1:** Restrict development from encroaching into natural areas to protect viewsheds and access to public space.
- **Policy UD 17-2:** Enhance linkages and access points with lighting and signage.

**STRATEGY No. 18:** Improve and preserve the unique and fine qualities of Long Beach to strengthen the City's image and eliminate undesirable or harmful visual elements.

- **Policy UD 18-1:** Carefully consider the development of iconic sites with visual corridors or structures of the highest visual and architectural quality.
- **Policy UD 18-2:** Expand the existing network of scenic routes and expand to include additional routes, corridors, and sites.
- **Policy UD 18-3:** Establish guidelines and zoning overlays, as appropriate, to regulate development within scenic areas and for iconic sites.
- **Policy UD 18-4:** Prioritize aesthetics to enhance the quality of new and existing developments within scenic areas and iconic sites.
- **Policy UD 18-5:** Include aesthetic design considerations for all roadway and appurtenances within scenic areas.
- **Policy UD 18-6:** Remove or screen visual pollution, including amortizing blighting conditions.
- **Policy UD 18-7:** Increase the visibility and awareness of visual resources through promotional materials to all segments of the population.
- **Policy UD 18-8:** Increase governmental commitment to the designation of scenic routes and the protection of scenic resources, and create and maintain a system of scenic routes through joint public and private responsibility.
- **Policy UD 18-9:** Link and enhance significant recreational, cultural, and educational opportunities through a network of scenic corridors.
- **Policy UD 18-10:** Follow the principles of the former scenic highways element, now incorporated into the General Plan as part of street character change (Mobility Element, Page 89, Map 16), and as part of the Street Design Manual, implementation measure MOP IM-1, Page 122.

**STRATEGY No. 19:** Protect and enhance established Founding and Contemporary Neighborhood PlaceType.

- **Policy UD 19-1:** Encourage new construction, additions, renovations, and infill development to be sensitive to established neighborhood context, historic development patterns, and building form and scale.
- **Policy UD 19-2:** Ensure that project site design and function minimizes the potential adverse impacts of vehicle access, parking and loading facilities, signage, lighting, trash enclosures, and sound systems.
- **Policy UD 19-3:** Support new development that is designed to respect the height, massing, and open space characteristics of the existing neighborhood while creating the appearance of single-family units for multifamily buildings to allow for better integration.
- **Policy UD 19-4:** Promote the uniqueness of each neighborhood through preservation of mature trees, historic structures, fine-grained architectural detail, appropriate building scale, and cultural amenities that are key to the neighborhood's identity and help create a uniform streetscape.
- **Policy UD 19-5:** Provide shade trees to match the existing species to reinforce neighborhood identity, to add greenscape for texture, shade, and overall visual character, and to create a uniform streetscape. Maintain consistent wall and fence treatment along the street edge.

**STRATEGY No. 20:** Protect and enhance established Multi- Family Residential - Low and Moderate PlaceTypes.

- **Policy UD 20-1:** Integrate Multi-Family Residential – Low and Moderate PlaceType neighborhoods with surrounding uses to encourage appropriate transitions in height and massing.
- **Policy UD 20-2:** Encourage the design of multifamily buildings to relate to and reflect the surrounding context, whether it is historic or of a recognizable design era.
- **Policy UD 20-3:** Encourage the design of multifamily buildings along major corridors and near transit areas to increase density over existing conditions to encourage investment and development of infill sites.
- **Policy UD 20-4:** Encourage all development to exhibit a high standard of design and materials, to maintain privacy standards, and to provide public frontages that contribute to the larger street and block character.
- **Policy UD 20-5:** Preserve the existing urban fabric through preservation of mature trees, historic structures, and cultural amenities.

- **Policy UD 20-7:** Encourage walk-up entries, patios, and balconies to maintain “eyes on the street” and encourage active ground floor uses along major street frontages.

**STRATEGY No. 21:** Protect and enhance established Neighborhood-Serving Centers and Corridors – Low and Moderate PlaceTypes.

- **Policy UD 21-1:** Promote the concentration of mixed uses and higher building intensity nearest the center of the PlaceType and adjacent to transit stations, with housing or lower scale buildings at the periphery.
- **Policy UD 21-2:** Encourage gateway elements that help define neighborhood edges and provide transitions into center development along lengthy corridors.
- **Policy UD 21-3:** Promote pedestrian activity by establishing well-designed streetscapes, active ground floor uses, and tree-canopied sidewalks that are unique to the individual neighborhood and transit stations.
- **Policy UD 21-4:** Ensure signage, lighting, and other potential nuisances are selected with sensitivity to existing residential neighbors.

**STRATEGY No. 22:** Protect and enhance established Transit-Oriented Development – Low and Moderate PlaceTypes.

- **Policy UD 22-1:** Encourage the massing of buildings and setbacks behind the Long Beach Boulevard light rail corridor to transition from moderate to low, in order to gracefully handle the transition from more intense to less intense development.
- **Policy UD 22-2:** Establish tree-lined sidewalks to provide a shade canopy and human-scale along primary corridors and adjacent to transit centers.
- **Policy UD 22-3:** Provide a mix of uses either within a single development or within a 1/4-mile radius of the PlaceType area, and centered around a transit station. The highest density of development should occur nearest the station.
- **Policy UD 22-4:** Incorporate amenities such as benches, bike racks, banners, way-finding signage and public art within Transit-Oriented Development to foster a pleasant experience and convey the unique identity of each district.
- **Policy UD 22-6:** Require a well-designed interface between pedestrians, bicyclists, and transit users. Bicycle facilities and pedestrian amenities, including enhanced crosswalks, mid-block crossings, curb extensions, paseos, and public plazas, should be integrated throughout the PlaceType.
- **Policy UD 22-7:** Develop iconic architecture, plazas, and major entrances oriented towards the transit station.

**STRATEGY No. 23:** Protect and enhance established Community Commercial PlaceType.

- **Policy UD 23-1:** Provide adequate setbacks, along with visual and noise buffers, to separate automobile-oriented developments from adjacent residential neighborhoods.
- **Policy UD 23-2:** Develop single-family attached units or multifamily residential uses as a transition in scale between the automobile-oriented corridor and the adjacent neighborhood.
- **Policy UD 23-3:** Encourage new developments to provide alley and streetscape improvements that enhance the experience of the pedestrian and transit rider, such as low walls screening parking lots, substantial landscaping, street trees, and pedestrian-scaled lighting.
- **Policy UD 23-4:** Provide clear and controlled signage that is not allowed to proliferate along the corridor or within a center in order to minimize visual clutter.
- **Policy UD 23-6:** Provide low walls or hedges to buffer pedestrians from surface parking lots and provide well-marked pedestrian paths from sidewalks and parking lots to commercial entrances.

**STRATEGY No. 24:** Protect and enhance established Industrial PlaceType.

- **Policy UD 24-1:** Promote flexible interior spaces, integrated technological resources, innovative architectural styles, and enhanced entrances and frontages to attract creative office and neo-industrial uses.
- **Policy UD 24-3:** Promote the incorporation of buffers between residential and industrial uses, such as surface parking, landscaped open space buffers, and lower buildings.
- **Policy UD 24-6:** Provide heavily landscaped edges and screening along industrial corridors to make them more attractive to pedestrians, bicyclists, and transit users.
- **Policy UD 24-7:** Establish parkways, planted medians, and street trees along the sidewalk to increase permeable surface areas.

**STRATEGY No. 25:** Protect and enhance established Neo-Industrial PlaceType.

- **Policy UD 25-2:** Establish visual screens, whenever possible, between live-work units and existing heavy or unenclosed industrial operations.
- **Policy UD 25-3:** Encourage buildings that step down to match permitted residential building heights where new development is adjacent to residential uses.
- **Policy UD 25-4:** Encourage development intensity that is graduated, from lower intensity near residential neighbors, to moderate intensity near wholly industrial uses.
- **Policy UD 25-5:** Encourage Neo-Industrial PlaceTypes to have improved walkability with on-site, sidewalk and streetscape landscaping, signage, and other enhancements.

- **Policy UD 25-6:** As a critical component of this PlaceType, establish alleys and pathways between streets and blocks that will be maintained and enhanced.
- **Policy UD 25-8:** Integrate sustainable design strategies into all development or redevelopment, including new exterior materials or design features.

**STRATEGY No. 26:** Protect and enhance established Regional-Serving Facility PlaceType.

- **Policy UD 25-1:** Enhance the edges, both within and adjacent to, the regional serving facility to avoid abrupt transitions between large institutional facilities and their neighbors.
- **Policy UD 26-2:** Encourage separation of incompatible land uses with site planning strategies and appropriate design treatments.
- **Policy UD 23-3:** Incorporate shade trees and pedestrian amenities along main streets, with pedestrian entrances oriented toward the sidewalk, not just internalized to the campus or facility.
- **Policy UD 26-4:** Incorporate design features that provide for thematic elements to link adjacent areas with regional serving facilities, reinforcing community connections to these places.

**STRATEGY No. 27:** Protect and enhance established Downtown PlaceType.

- **Policy UD 27-1:** Promote the importance of the transitions between uses and developments in the Downtown PlaceType, given the small block sizes and mix of different uses.
- **Policy UD 27-3:** Establish sustainable streetscape design as a norm for this PlaceType.
- **Policy UD 27-4:** Enhance streetscapes and building elements to promote significant pedestrian activity by providing well-articulated building facades with quality building materials and workmanship, and featuring high-quality street furnishings and design.
- **Policy UD 27-5:** Establish a bustling urban environment that will allow pedestrians to feel comfortable and welcome.

**STRATEGY No. 28:** Protect and enhance established Waterfront PlaceType.

- **Policy UD 28-2:** Encourage mixed-uses and greater building intensity to be located nearest the center within this PlaceType, with housing and/or lower-scale buildings on the periphery.
- **Policy UD 28-4:** Develop attractive gateway elements to invite visitors in to explore the unique offerings found in each of the Waterfront PlaceTypes.
- **Policy UD 28-5:** Promote and preserve street design characteristics unique to each Waterfront PlaceType.

- **Policy UD 28-8:** Establish signage that is clear and controlled.
- **Policy UD 28-10:** Encourage pedestrian-scaled building details featuring well-articulated building facades with quality building materials and workmanship.

**STRATEGY No. 29:** Restore and protect Long Beach’s natural features, which include: the Pacific Ocean, beaches, bluffs, San Gabriel and Los Angeles Rivers, ranchos and adjacent land, Dominguez Gap, the Los Cerritos Wetlands, and waters in Alamitos Bay.

**STRATEGY No. 31:** Provide a variety of public spaces throughout the City.

- **Policy UD 31-3:** Encourage plazas and public spaces in locations that take advantage of views and viewsheds.
- **Policy UD 31-4:** Promote the integration of adequate seating, bike racks, water features, public art, and other pedestrian amenities within plazas and public spaces.

**STRATEGY No. 35:** Building design and form shall define street walls that contribute to great streets and vibrant pedestrian environments.

- **Policy UD 35-2:** Buildings should be constructed of high quality and durable materials, especially at the ground floor, which is experienced most by pedestrians.
- **Policy UD 35-4:** Emphasize pedestrian orientation in site and building design to define the public realm and activate sidewalks and pedestrian paths.
- **Policy UD 35-6:** Maintain a minimum street wall height to ensure the “public room of the street” (as shaped by buildings on both sides) is consistent. This is intended to eliminate parcels being underdeveloped along the edges, thus not contributing to the creation of good streets.
- **Policy UD 35-7:** Monolithic structures that appear as a massive wall, block views, or overshadow the surrounding neighborhood, should be avoided.
- **Policy UD 35-8:** Where parking structures are planned, the street wall should be composed of active uses that screen podium parking, parking structures, and other uses that do not contribute to a vibrant pedestrian environment.

**STRATEGY No. 36:** Develop a specific role and identity for a street, so that it contributes to the neighborhood’s character while supporting specific, functional requirements.

- **Policy UD 36-1:** Improve the frontage zone of buildings as extensions of the building, by enhancing entryways and doors, incorporating sidewalk cafes, and enhancing the space adjacent to the building as part of the pedestrian experience.

- **Policy UD 36-2:** Develop streetscape strategies and concepts that establish a street as a public room, and incorporate opportunities for dining and display, walking, landscaping, and street furniture.
- **Policy UD 36-3:** Develop guidelines for sidewalk dining and parklets that enhance the overall character of the streetscape and provide restaurants and businesses a streamlined permitting process to encourage sidewalk dining and parklets where appropriate.
- **Policy UD 36-4:** Identify zones along both sides of the street that define the building edge, dining and display areas, walking zone, planting and street furniture zones, and parking zones to enhance the character of the “public room.”

**STRATEGY No. 37:** Frontages shall have well-designed street walls, contributing to making an inviting transition between public and private space.

- **Policy UD 37-1:** Unify streets within each district with consistent frontage character types.
- **Policy UD 37-2:** Provide outdoor dining areas at restaurants with enclosed patios, decorative fencing, planters, and potted plants.
- **Policy UD 37-3:** Identify areas for frontage improvements along pedestrian priority areas, described in the Mobility Element on Page 80, Map 13.
- **Policy UD 37-4:** Promote façade improvement strategies and implementation measures for existing commercial, office, and residential buildings, and incorporate the following improvements:
  - Entrances that include recessed doors, archways or cased openings, a change in wall plane, and/or projecting elements above the entrance.
  - Accessible pathways from parking or the street to building entries.
  - Low-level lighting on pathways and building faces.
  - Clear glass windows on the ground floor for interior shop views, awnings, or other window coverings that contribute to defining the character of the building.
  - 360-degree architectural articulation.

**STRATEGY No. 38:** Enhance the functionality within each PlaceType by improving the character and functionality of each Street Type.

- **Policy UD 38-2:** Ensure that urban and downtown areas with high volumes of pedestrian travel have enlarged walk zones, street trees, and maximum use of street furnishings and lighting.
- **Policy UD 38-4:** Buffer and screen parking areas with landscaping, berms, or low screens.

- **Policy UD 38-5:** Provide special paving treatment or striping at crosswalks and intersections.
- **Policy UD 38-7:** Create a clear frontage zone along the sidewalk with clear visibility of the structure and façade, as well as the space adjacent to the building.
- **Policy UD 38-9:** Provide a street furniture and landscape zone adjacent to the curb for parkways, tree grates, bicycle parking, lighting, benches, newspaper kiosks, utility poles, potted plants, benches, transit shelters, and other pedestrian amenities.

**STRATEGY No. 39:** Beautify the City with trees and landscaping while being conscious of water resources and utilizing sustainable practices.

- **Policy UD 39-1:** Accommodate large canopy street trees that contribute to the City's urban forest, enhance street character and neighborhood identity, and provide shade for pedestrians and parked cars and bikes.

**STRATEGY No. 40:** Design parking lots, structures, driveways, and access points to promote walkability, reduced trips, and promote sustainability.

- **Policy UD 40-1:** Minimize the visual impact of parking structures by encouraging the first floor to be wrapped with pedestrian-friendly uses and by urban design and landscaping features along pedestrian-oriented street frontages.
- **Policy UD 40-3:** Beautify and screen parking lots located adjacent to a street edge with landscaping, shade trees, and decorative paving treatments.
- **Policy UD 40-4:** Use planter beds, decorative paving materials, and safe pedestrian paths to break up large areas dedicated to parking.
- **Policy UD 40-6:** Enhance driveway access points with ornamental landscaping, accent paving, and lighting.

**STRATEGY No. 41:** Connect neighborhoods, corridors, and centers by maintaining and providing for walkable blocks.

- **Policy UD 41-4:** Provide street furnishings in the pedestrian zone to encourage walking and to stop and rest.
- **Policy UD 41-5:** Promote enhancement, repair, and maintenance of alleys, paseos, paths, and trails.
- **Policy UD 41-6:** Encourage the use of specialty paving or artistic ground treatment, such as painted concrete, where alleys intersect to enhance pedestrian activity.

- **Policy UD 41-7:** Provide wayfinding signs, pedestrian lighting for safety and security, benches, and public art along alleys, paseos, paths, and trails to enhance neighborhood character and walkability.

**City of Long Beach General Plan Conservation Element.** The City's Conservation Element (1973) addresses the conservation and enhancement of the City's natural and scenic resources. Goals and policies presented within the Conservation Element are intended to optimize and manage the City's resources. The following goals and policies related to visual resources are presented in the Conservation Element:

**GOAL:** To create and maintain a productive harmony between man and his environment through conservation of natural resources and protection of significant areas having environmental and aesthetic value.

**GOAL:** To identify and preserve sites of outstanding scenic, historic, and cultural significance or recreational potential.

**City of Long Beach General Plan Open Space and Recreation Element.** The City's Open Space and Recreation Element (2002) addresses the preservation of open space and recreation. Goals and policies presented within the Open Space and Recreation Element are intended to manage the use and enhancement of the City's parklands. The following goals and policies related to visual resources are presented in the Open Space and Recreation Element:

**Policy 1.2:** Protect and improve the community's natural resources, amenities, and scenic values, including nature centers, beaches, bluffs, wetlands, and water bodies.

**Long Beach Municipal Code.** Title 21, Zoning, of the Long Beach Municipal Code includes property development standards, as well as design guidelines, for development projects within the City. Among the aspects of development regulated by the Municipal Code are types of allowable land uses, setback and height requirements, landscaping, walls, fencing, signage, access, parking requirements, storage areas, and trash enclosures. The Long Beach Municipal Code also provides performance standards for various land use types to measure development projects' consistency with such regulations. The City is currently in the process of establishing Title 22 to facilitate a substantial update to the City's Zoning Code consistent with the recently adopted LUE. The intention is to fully transition from Title 21, which is the currently established zoning chapter within the City's Municipal Code, to Title 22, which will eventually regulate zoning throughout the City.

**Lighting Standards.** As described in the City's Zoning Code, all lighting proposed as part of a parking lot and/or garage shall be illuminated with lights directed and shielded to prevent light and glare from intruding onto adjacent sites. All lights shall be illuminated to the applicable standards of the Illuminating Engineers Society. Additional details pertaining to parking lot lighting are provided in Section 21.41.259, Parking areas-Lighting and Section 22.30.110, Lighting Design for Safety, of the City's Zoning Code.

**Rooftop Solar.** As described in the City's Zoning Code, regulations for rooftop solar are provided for residential, commercial, and industrial districts.

- **Section 21.31.220(B)(4) (residential):** Rooftop solar collectors and associated supporting structures may exceed the applicable height limit only if necessary for the sole purpose of solar collection, not otherwise installed on any occupiable areas of the roof, and consistent with the City of Long Beach Certified Local Coastal Program.
- **21.32.220 (h) (commercial):** Rooftop solar collectors and associated supporting structures may exceed the applicable height limit only if necessary for the sole purpose of solar collection and not otherwise installed on any occupiable areas of the roof.
- **21.33.130 (E) (industrial):** Rooftop solar collectors and associated supporting structures may exceed the applicable height limit only if necessary for the sole purpose of solar collection.

**Landscaping Design Guidelines.** Chapter 21.42, Landscaping Standards, of the City’s Zoning Code establishes landscape guidelines for development projects. As described in this section, the City requires that landscaping be composed of a minimum of 90 percent drought-tolerant and native plant materials in the interest of promoting water conservation. If the proposed planted area contains less than 90 percent of land covered with very-low to low water-use planting, a Landscape Document Package showing the Estimated Total Water Usage (ETWU) of all proposed plantings is required for City review and approval. The landscaping standards would be applicable to all projects requiring site plan review.

#### 4.1.4 Methodology

##### 4.1.4.1 Key Concepts and Terminology

The concepts and terminology used in this analysis are described below.

- **Scenic Resource:** Scenic resources are defined as natural or man-made elements that contribute to an area’s scenic value and are visually pleasing. Scenic resources include landforms, vegetation, water, or adjacent scenery and may include a cultural modification to the natural environment. The degree to which these resources are present in a community is clearly subject to personal and cultural interpretation. However, it is possible to qualify certain resources as having aesthetic characteristics and establish general guidelines for assessing the aesthetic impacts of new development. The most prominent scenic resources in the planning areas are the Port of Long Beach, Pacific Ocean, and associated beaches.
- **Scenic Vista:** A scenic vista is viewpoint that provides expansive views of a highly valued landscape for the public’s benefit. It is usually viewed from some distance away. Aesthetic components of a scenic vista include (1) scenic quality, (2) sensitivity level, and (3) view access. A scenic vista can be impacted in two ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or “vista” of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project’s proposed height, mass, and location relative to surrounding land uses and travel corridors.

Scenic vistas within the planning area include views of the Pacific Ocean, the Los Cerritos Wetlands, Jack Dunster Marine Biological Reserve, Golden Shore Marine Biological Reserve Park, and the Dominguez Gap Wetlands. Views of distant mountain ranges, such as the San Gabriel, San Bernardino, and Santa Ana Mountains, also constitute scenic vistas within the planning area.

- **Sensitive View:** Sensitive views are generally those associated with designated vantage points and public recreational uses, but the term can be more broadly applied to encompass any valued public vantage point. Sensitivity level has to do with the (1) intensity of use of a visual resource; (2) visibility of a visual resource; and (3) importance of the visual resource to users.
- **Scenic Corridors:** Scenic corridors are channels that facilitate movement (primarily by automobile, transit, bicycle, or foot) from one location to another with expansive views of natural landscapes and visually attractive man-made development. Scenic corridors analyzed under the California Environmental Quality Act (CEQA) typically include State-designated scenic highways.
- **Visual Character and Quality:** The visual aesthetic character or quality of a streetscape, building, group of buildings, or other man-made or natural feature that creates an overall impression of an area within an urban context. For example, a scenic vista along the boundary of a community, a pleasing streetscape with trees, and well-kept residences and yards are scenic resources that create a pleasing impression of an area. In general, concepts of visual character and quality can be organized around four basic elements: (1) site utilization, (2) buildings and structures, (3) landscaping, and (4) signage. Adverse visual quality effects can include the loss of aesthetic features or the introduction of contrasting features that could contribute to a decline in overall visual character. In addition, the degree of access to a visual resource contributes to the value of that resource so that an adverse visual quality effect can also occur if access to a visual resource is restricted.
- **Glare:** A continuous or periodic intense light that may cause eye discomfort or be temporarily blinding to humans.
- **Light Source:** A device that produces illumination, including incandescent bulbs, fluorescent and neon tubes, halogen and other vapor lamps, and reflecting surfaces or refractors incorporated into a lighting fixture. Any translucent enclosure of a light source is considered to be part of the light source.

The analysis of visual impacts focuses on changes in the visual character of the planning area that may result subsequent to the approval of the proposed project as a result of the CAAP Actions to meet the City's GHG reduction targets and Adaptation Actions to address impacts of climate change. Implementation of CAAP Actions and Adaptation Actions by the City, other agencies, or private developers would be subject to review to determine if a project-level CEQA analysis is required. The CAAP Checklist provided in Appendix D translates the CAAP Actions and Adaptation Actions into project-level measures, to ensure future discretionary projects are consistent with the proposed CAAP's goals and policies to aid in reducing the City's greenhouse gas (GHG) emissions and achieve the City's GHG target for 2030. This would include the visual

compatibility of on-site and adjacent uses, changes in vistas and viewsheds where visual changes would be evident, changes to scenic resources along designated scenic roads, and the introduction of new sources of light and glare. Impacts to the existing environment in and around the planning area are identified by the contrast between the visual setting of the planning area before and after implementation of the proposed project.

Although few standards exist to singularly define perceptions of aesthetic value, the degree of visual change can be described in terms of visual contrast. The visual contrast of pattern elements<sup>2</sup> within visual environments can be described based on four aspects of pattern character<sup>3</sup>: dominance, scale, diversity, and continuity. The enjoyment or interpretation of the visual experience is the visual quality. The degree of visual character and quality is evaluated around three descriptive elements: vividness, intactness, and unity. None of these descriptive elements alone is equivalent to visual quality; all three must be high to substantiate high visual quality.

- **Vividness:** Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns. For example, the view of the Grand Canyon would be rated high for vividness. In the City, views of the Port of Long Beach would be rated high for vividness.
- **Intactness:** Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept urban and rural landscapes and natural settings. For example, the view of a two-lane road meandering through the countryside would be rated high for intactness. In the City, views of the Alamitos Bay from Vista Marina Park would be rated high for intactness.
- **Unity:** Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape. For example, the view of an English or Japanese garden would be rated high for unity. In the City, views of the Pacific Ocean would be rated high for unity.

Visual changes to an existing setting could result in a positive or a negative perception of the proposed project depending on the viewer groups. Thus, viewer sensitivity is a combination of visual quality changes and viewer response to those changes. Viewer sensitivity to a project varies depending on familiarity with existing views, the sense of ownership of these views, and the activities viewers perform in relationship to those views. Visual perception is the act of seeing or recognizing an object and can be affected by physical conditions such as distance and speed. As an observer's distance increases from an object, the ability to see the details of an object decreases. Similarly, as an observer's speed increases, the sharpness of lateral vision declines and the observer tends to focus along the line of travel. Thus, the physical location of

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<sup>2</sup> Pattern elements are primary attributes of a landscape and include form, line, color, and texture.

<sup>3</sup> Pattern character refers to the visual relationships of pattern elements.

the viewer group and the duration of its view would affect viewer exposure. All of these factors potentially affect perception and reaction to visual changes.

**Light and Glare.** The analysis of light and glare identifies the location of light-sensitive land uses and describes the existing ambient conditions on and in the vicinity of the planning area. The analysis describes the proposed project's light and glare sources and the extent to which project lighting, including any potential illuminated signage, would spill off the planning area onto adjacent light-sensitive areas. The analysis also describes the affected street frontages, the direction in which the light would be focused, and the extent to which the proposed project would illuminate sensitive land uses. The analysis also considers the potential for sunlight to reflect off of windows and building surfaces (glare) and the extent to which such glare would interfere with the operation of motor vehicles, aviation, or other activities. Glare can also be produced during evening and night-time hours by artificial light sources, such as illuminated signage and vehicle headlights. Glare-sensitive uses generally include residences and transportation corridors (i.e., roadways).

**Shade/Shadow.** Prolonged periods of shade and shadowing have the potential to negatively affect the character of certain land uses. Shadow-sensitive uses include routinely used outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses, such as pedestrian-oriented outdoor spaces or restaurants with outdoor seating areas; nurseries; and existing solar collectors/panels.

#### 4.1.4.2 Analysis Approach

As stated above, the assessment of aesthetic impacts is subjective by nature. This analysis attempts to identify and objectively examine factors that contribute to the perception of aesthetic impacts that would be caused by implementation of the proposed project.

The City has not adopted defined standards for analyzing aesthetic impacts. Because the proposed project under evaluation in this Draft SEIR includes both the proposed CAAP and Public Safety Element Update of the City's General Plan, and because specific design plans for future discretionary projects that may be facilitated by approval of the proposed project are not known at this time, the visual effects of the proposed project are evaluated on a programmatic level based on the project's consistency with goals and policies established in the Land Use (2019), Urban Design (2019), Open Space and Recreation (2002), and the Conservation (1973) Elements of the City's General Plan and whether or not visual changes that may result from implementation of the proposed project would be compatible with the surrounding area.

#### 4.1.5 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact related to aesthetics if it would:

**Threshold 4.1.1:** Have a substantial adverse effect on a scenic vista;

**Threshold 4.1.2:** Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;

**Threshold 4.1.3:** In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings. If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or

**Threshold 4.1.4:** Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

#### 4.1.6 Project Impacts

**Threshold 4.1.1: Would the project have a substantial adverse effect on a scenic vista?**

**CAAP: Less Than Significant Impact.** The proposed project includes the proposed CAAP, which was included as a mitigation measure in the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development and reduce the City's greenhouse gas (GHG) emissions. The proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. Implementation of certain CAAP Actions by the City or other agencies, such as performance of municipal energy and water audits (BE-7), may not be subject to discretionary approval and project-level CEQA review. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG analysis streamlining. In order to demonstrate consistency with the proposed CAAP, future projects would either demonstrate emissions below the CAAP target of 1.4 metric tons of carbon dioxide equivalent per service population (MT CO<sub>2</sub>e/SP) or less, or implement both mandatory (Tier 1) measures and, to the maximum extent feasible, the encouraged (Tier 2) measures that support the CAAP Actions and would achieve the City's GHG emissions targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a project does not include specific Tier 1 measures, equivalent measures for GHG emissions reductions backed by substantial evidence must be provided for the project in order for the project to utilize the CAAP Checklist in lieu of a project-level GHG analysis.

Tier 1 measures are required because they were quantified as part of the City's GHG reduction pathway for new development. Tier 1 measures or equivalent strategies would also be required for other improvements to existing development to demonstrate consistency with the goals and policies of the CAAP. Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. There are no Tier 2 measures identified for the Building and Energy sector. Implementation of the Tier 1 measures would support the CAAP Actions for Building and Energy by requiring increased access to and incentives for clean electricity (BE-1 and BE-5) and the increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures. Implementation of small-scale solar power panels or charging stations is not anticipated to involve construction of large buildings or structures at a scale

that would substantially alter or obstruct views from scenic vistas. While rooftop solar panels may be visible from scenic vistas, solar panels are generally consistent with the existing roofline and periods of reflection are limited in duration due to the position of the sun and direction of the panels away from sensitive receptors and would be subject to development standards in the Long Beach Municipal Code, which includes specific requirements related to rooftop solar as described in Section 4.1.3 above. Future development projects that include solar panels would be required to comply with standards related to light and glare established under the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) and in the City's Municipal Code. Other Building and Energy CAAP Actions would increase energy efficiency of existing facilities, electrify new residential and commercial buildings, and reduce emissions from local oil and gas extraction. Future projects that implement measures to support these CAAP Actions are not anticipated to substantially alter or obstruct views from scenic vistas as these would be accomplished through minor improvement and retrofits to existing facilities, rather than development of new structures, and all improvements would be reviewed at the project level to determine if project-specific CEQA review is required. Future discretionary projects that may result in the development of larger renewable energy facilities, such as projects that would promote community solar (BE-3), would be subject to project-specific CEQA review and would be evaluated for consistency with the standards of the adopted LUE and PlaceTypes. In addition, all future discretionary projects that utilize the CAAP Checklist for GHG streamlining would also be reviewed for consistency with the adopted LUE through Step 1 of the CAAP Checklist. Therefore, Tier 1 measures that support CAAP Actions for Building and Energy are not anticipated to result in significant alterations to scenic vistas. Future discretionary projects would also be subject to project-specific mitigation measures, if applicable. Although Building and Energy CAAP Actions such as increased use of solar power (BE-2 and BE-3) may result in changes to visual character from the installation of rooftop solar panels or other solar power facilities, future development needed to implement these actions would be designed for consistency with Policies LU 7-8, UD 14-1, and UD 14-2 related to compatibility of development with surrounding land uses, building scale, and transitions between land uses.

Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 2 measures for the Transportation sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service (T-1), providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5), complying with City TDM requirements (T-7), and complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to Senate Bill (SB) 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Similar to the Building and Energy CAAP Actions above, future projects that include the development of new transit facilities and increased residential, commercial, and mixed-use development near transit facilities would be analyzed for consistency with the adopted LUE, Mobility Element, and PlaceTypes. The adopted PlaceTypes were established in order to allow for greater flexibility, density, and mix of compatible land uses, including increased density near transit. Other Tier 2 measures to support the CAAP Actions for Transportation listed on the CAAP Checklist

are designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establishing bus-only lanes, and expanding electric-vehicle charging infrastructure to further reduce emissions. Mandatory Tier 1 measures related to bicycles and pedestrians would include improvements that are typically low-lying in nature (involving the ground surface only). Therefore, implementation of both Tier 1 and Tier 2 measures to support the CAAP Actions for Transportation as part of future discretionary projects is not anticipated to impact scenic vistas, and implementation of the proposed CAAP would help achieve the goals and policies of the adopted LUE and Mobility Element. Furthermore, all future discretionary projects would be designed for consistency with the adopted UDE, which encourages transitions of PlaceTypes while decreasing land use and visual conflicts.

Tier 1 measures required for the Waste sector include the recycling of appropriate materials and organics waste diversions. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion. Implementation of the Tier 1 measures would support CAAP Actions for Waste by requiring recycling (W-1) and organic waste diversion (W-2). The provision of recycling and compost bins to commercial and residential uses to help implement these actions would not result in changes to visual character that would be visible from or impede scenic vistas and would be subject to all screening requirements in the Long Beach Municipal Code. Other CAAP Actions for Waste supported by the measures listed on the CAAP Checklist would expand community-wide participation in organic waste collection and diversion. Future discretionary projects that might result in the development of organic waste facilities would be evaluated for consistency with the land uses and standards of the adopted LUE and resulting PlaceTypes, subject to project-specific CEQA review and project-specific mitigation measures, if applicable. Therefore, implementation of Tier 1 and Tier 2 measures to support the CAAP Actions related to Waste for future discretionary projects is not anticipated to result in significant alterations to scenic vistas, consistent with the adopted development standards.

Future discretionary projects will be required to demonstrate compliance with the CAAP Checklist for the purpose of meeting the City's GHG reduction target, by documenting the incorporation of Tier 1 and Tier 2 measures, or equivalent replacement strategies that support the proposed CAAP Actions at a project level. All future discretionary projects will be reviewed in accordance with CEQA and for consistency with the goals and policies of the City's General Plan and development standards. The proposed project would also be consistent with the policies and goals of the adopted LUE and UDE aimed at guiding the aesthetic character of new development in a manner that would not significantly inhibit or obstruct scenic vistas in the planning area. Project applicants would be required to demonstrate consistency with goals, policies, and strategies outlined in the adopted LUE, UDE, and other General Plan policies aimed at preserving scenic vistas in the planning area. Furthermore, these future discretionary projects do not constitute the proposed project, which is limited to adoption of the proposed CAAP as a planning/policy document. Potential impacts on scenic vistas would be less than significant, and no mitigation would be required.

In addition to the measures to support the CAAP Actions to achieve the GHG emissions target of the CAAP, the proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. The Adaptation Actions provide general strategies that may be needed to lessen climate change impacts based on the CAAP Vulnerability Assessment. While

Adaptation Actions would not be required to meet the City's GHG reduction targets, they are included on the CAAP Checklist because they may be applicable to future discretionary projects and would demonstrate consistency with the overall goals and strategies of the CAAP. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions to lessen the impacts of climate change on critical infrastructure and public facilities. The proposed CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact that would be accomplished through implementation of the Adaptation Actions. There is not sufficient information at this time to analyze potential future physical improvements that may be needed to implement the proposed framework of Adaptation Actions in the CAAP, such as elevating infrastructure, as specific projects and locations are unknown. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future improvements would be analyzed on a project level pursuant to CEQA and for consistency with policies and standards in the adopted LUE and UDE, intended to improve the overall visual character of the City through new development projects that would shape the urban environment of the City, while preserving existing development that defines its unique aesthetic character. Therefore, potential impacts of the Adaptation Actions on scenic vistas would be less than significant, and no mitigation is required.

It should also be noted that the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Program EIR concluded that the LUE would result in a less than significant impact related to effects on a scenic vista. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Program EIR.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in impacts to scenic vistas. Therefore, the Safety Element update would have no impact on scenic vistas, and no mitigation is required.

**Threshold 4.1.2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?**

**CAAP: Less Than Significant Impact.** According to the Caltrans Scenic Highway Mapping System, there are no State-designated scenic highways in the planning area; however, as described in Section 4.1.3.2 above, PCH is considered to be an Eligible State Scenic Highway.

Although there are no State-designated scenic highways in the City, the City's existing General Plan adopted UDE designates local scenic routes. Specifically, the UDE identifies Ocean Boulevard and Livingston Drive as a designated scenic route and identifies future expansions. In addition, the City's Open Space and Recreation Element requires protection of scenic features in the City, including

beaches, bluffs, wetlands, and water bodies. Due to their prevalence throughout the City, these scenic features are viewable from the established local scenic routes.

The proposed project is a policy/planning action and approval of the CAAP at a programmatic level does not constitute approval of physical development necessary to implement CAAP Actions that would require project-level CEQA review, nor would it grant any entitlements for development that would result in the permanent obstruction of the scenic routes identified above. As described above, the proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA streamlining. In order for future discretionary projects to demonstrate consistency with the CAAP, the CAAP Checklist includes Tier 1 measures that support CAAP Actions related to Building and Energy designed to ensure that future discretionary projects reduce GHG emissions, such as through the increased use of clean electricity or solar power, and ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Other Tier 1 measures would support Building and Energy CAAP Actions by requiring energy efficiency improvements and increased use of solar power and clean electricity sources. The CAAP Checklist also includes Tier 1 and Tier 2 measures to support Transportation CAAP Actions including the expansion of the bicycle and pedestrian network and other measures to reduce vehicle miles traveled (VMT) would result in beneficial improvements to City roadways and may also improve the visual character of local scenic routes. All Tier 1 and Tier 2 measures, or equivalent replacement strategies to support CAAP Actions, would be implemented through future City-initiated and discretionary projects. All future discretionary projects that would utilize the CAAP Checklist to demonstrate compliance with the City's GHG reduction goals would be subject to review under CEQA and consistency with the City's General Plan Mobility Element, the Urban Design Element, the Street Design Manual, and the Caltrans Scenic Highway Program.

As described above, in addition to the measures to support CAAP Actions related to Building and Energy, Transportation, and Waste that would apply to future development to achieve the GHG emissions target of the CAAP, the proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. While incorporation of Adaptation Actions strategies would not be required to meet the City's GHG reduction targets, they are included on the CAAP Checklist for future discretionary projects to implement as applicable, and could help lessen the impacts of climate change on future development projects and the community. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessen the impacts of climate change on critical infrastructure and public facilities. The CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact. There is not sufficient information at this time to analyze potential future physical improvements that are suggested as Adaptation Actions in the CAAP as specific projects and locations are unknown. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future discretionary improvements would be analyzed on a project level pursuant to CEQA, and project-specific mitigation for potential impacts to scenic resources within a State-designated scenic highway would be required, as applicable. Therefore, potential impacts of the Adaptation Actions would be less than significant, and no mitigation is required.

All future discretionary projects that would utilize the CAAP Checklist would be designed in accordance with all applicable regulatory ordinances and General Plan policies, which would aim at preserving scenic routes established throughout the City. Therefore, the proposed project would not result in impacts related to the substantial damage of scenic resources within a State-designated highway.

It should also be noted that the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Program EIR concluded that the LUE would result in a less than significant impact related to the substantial damage of scenic resources within a State-designated highway. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Program EIR.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in impacts to scenic resources within a State-designated scenic highway. Therefore, the Safety Element update would have no impact on scenic resources within scenic highway, and no mitigation is required.

**Threshold 4.1.3: In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

**CAAP: Less Than Significant Impact.** As previously noted, the planning area is currently characterized as a built-out urban environment. The proposed project would be implemented by the City, other agencies, or private developers through CAAP Actions, which would include improvements that would be subject to project-level review under CEQA to determine potential impacts. Application of the CAAP Checklist (Appendix D) for future discretionary projects would allow for CEQA streamlining in lieu of a project-specific GHG emissions analysis. These future discretionary projects may result in changes to visual character or to public views within the planning area. However, the proposed project is approval of the CAAP and does not constitute approval of any physical development of buildings or structures subject to project-level CEQA analysis, and all Tier 1 and Tier 2 measures, or equivalent replacement strategies required to support the CAAP Actions would be included in future discretionary projects in order to demonstrate consistency with the City's GHG reduction targets. Future discretionary projects that utilize the CAAP Checklist for GHG analysis streamlining would still be subject to project-specific CEQA review and would be evaluated for consistency with the adopted LUE and PlaceType designations. Therefore, impacts to the visual character of the planning area from future discretionary projects that include the required measures to demonstrate consistency with the CAAP, which may include development of renewable energy facilities, transit, pedestrian and bicycle facilities, or waste collection facilities, would be evaluated for consistency with the higher-density development in designated locations and the visual compatibility established by the adopted LUE

and resulting PlaceTypes and adjacent land uses. In addition, these future discretionary projects that demonstrate consistency with the CAAP may result in changes within the built environment involving the replacement of existing structures with new structures (i.e., new renewable energy or transit facilities) including high-quality materials and design required under the UDE. While these changes may be widespread over time, they would be subject to review under CEQA and are not considered degrading to the City's visual character as intended by the meaning of the threshold. In addition, in many circumstances, such updates and changes may result in improvements to the visual quality of the built environment.

Furthermore, the visual character and quality of the planning area would be preserved and enhanced through the future discretionary projects' consistency with the goals, policies, strategies, and development standards outlined in the adopted LUE and UDE that are intended to guide the quality and aesthetic value of existing and future development in the City. Future discretionary projects within the City would also be required to submit detailed plans to the City to ensure consistency with the City's design requirements aimed at improving the visual character of the planning area. For example, as the City works with transit agencies to enhance transit service frequency at a transit stop (T-1) and existing neighborhoods, the policy framework is in place to ensure appropriate buffers to minimize impacts associated with shade/shadow on adjacent uses. Therefore, the CAAP Actions supported by the Tier 1 and Tier 2 measures on the CAAP Checklist would not substantially degrade the visual character of the planning area nor conflict with applicable zoning and other regulations governing scenic quality, and no mitigation is required.

The CAAP Checklist also includes Adaptation Actions, which are not required to meet the City's GHG reduction targets, but rather provide general guidance as to the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen the impacts of climate change in particular locations throughout the City. While incorporation of Adaptation Actions strategies would not be required to meet the City's GHG reduction targets, they are included on the CAAP Checklist for future discretionary projects to implement as applicable and could help lessen the impacts of climate change on future development projects and the community. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessen the impacts of climate change on critical infrastructure and public facilities. The CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations and future development would be analyzed on a project level for consistency with policies and standards in the adopted LUE and UDE. Those policies are intended to improve the overall visual character of the City through new development projects that would shape the urban environment of the City, while preserving existing development that define its unique aesthetic character. Therefore, potential impacts of the Adaptation Actions related to scenic quality and visual character would be less than significant, and no mitigation is required.

It should also be noted that the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Program EIR concluded that the LUE would result in a less than significant impact related to scenic quality and visual character. As the proposed CAAP would not alter the land uses designations or

development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Program EIR.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in impacts to the visual character of the planning area or conflict with applicable zoning and other regulations governing scenic quality. Therefore, the Safety Element update would have no impact on visual character and scenic quality, and no mitigation is required.

**Threshold 4.1.4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**CAAP: Less Than Significant Impact.** Existing sources of light in the project vicinity include headlights on nearby roadways; building facade and interior lighting; pole-mounted lighting in the parking areas; and lighting associated with regional serving uses such as the Port of Long Beach, the Long Beach Airport, and entertainment activities at the Pike at Rainbow Harbor. Adjacent residential areas, public facility uses (including roadways and highways), commercial uses, and industrial uses also currently emit light and glare. Lighting from existing distant development within the region and surrounding cities also contributes to the background lighting within the City.

Future discretionary projects that utilize the CAAP Checklist and implement measures to support the CAAP Actions may result in light and glare impacts if they introduce highly reflective building materials that create glare or do not conform to applicable regulations related to glare. Reflective materials, such as large expanses of glass, are typically used in office and commercial uses that include large windows. Solar panels are typically developed with anti-reflective material but may also increase glare compared to existing conditions. Development associated with expanded pedestrian and bicycle facilities may also include additional lighting for safety.

Future discretionary projects that implement the measures to support the CAAP Actions would have the potential to introduce new sources of light to the City typical of development projects. Lighting proposed as part of future discretionary projects would vary by development type. Tier 1 measures that would occur in low-density residential areas such as bicycle and pedestrian improvements and provision of recycling and compost bins are anticipated to have a very minimal effect on nighttime lighting because these uses would be limited to security or ornamental lighting on supporting structures. Conversely, the largest nighttime lighting from new renewable energy facility development, new transit facilities, or development near existing transit facilities would occur in areas proposed for commercial, industrial, or high-density mixed-uses (e.g., high-rise buildings in the Downtown area), which already contain lighted signs and nighttime security lighting, and are often located near multifamily residential uses that have their own lighting requirements.

All future discretionary projects that utilize the CAAP Checklist and implement measures to support the CAAP Actions to demonstrate consistency with the City's GHG emissions targets would be reviewed under CEQA and would be required to comply with the design standards established in the

adopted UDE and the City's Municipal Code. Any other future discretionary projects implemented by the City, other agencies, or private developers that would help achieve the goals of the CAAP would also be subject both to project-specific CEQA review and the City's Municipal Code requirements. For example, all parking area and structure lighting would be designed with lights directed and shielded to prevent light and glare from intruding onto adjacent sites (Long Beach Municipal Code, Section 21.41.259, Parking areas—Lighting). On-site landscaping proposed as part of new development projects would further reduce glare and would serve to screen light sources to reduce the visual impact of lighting from buildings and parking lots. The City would review site plans and architectural renderings for new projects with an emphasis on the presence of reflective materials and proposed lighting to minimize potential impacts related to light and glare, and propose mitigation, if necessary. Potential mitigation measures could require the project applicant to prepare a lighting plan, a photometric study for review and approval, or undergo a lighting inspection. These measures are intended to minimize the impacts of new sources of light and glare on adjacent land uses, limit lighting to that necessary for security, and ensure that lighting is shielded to reduce glare and spill lighting effects to residential areas.

Although future development may introduce new sources of light that would contribute to the light visible in the night sky and surrounding area, the planning area is located within a highly urbanized area that is currently characterized by significant nighttime lighting. In addition, the proposed project does not include any physical development of buildings or structures, and any future discretionary projects that utilize the CAAP Checklist and that implement the measures to support the CAAP Actions would be subject to project-specific CEQA review as required. Therefore, the proposed project's impact related to light and glare would be less than significant, and no mitigation would be required.

In addition to the Tier 1 and Tier 2 measures to support the CAAP Actions, the CAAP Checklist also includes Adaptation Actions, which are not required to meet the City's GHG reduction targets, but rather provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen the impacts of climate change in particular locations throughout the City. While the Adaptation Actions are not required for future discretionary projects to meet the City's GHG reduction targets, they are encouraged through the CAAP Checklist because they may be applicable to future discretionary projects and could help lessen the impacts of climate change on future development projects and the community. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessen the impacts of climate change on critical infrastructure and public facilities. The CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future projects would be subject to CEQA and would be analyzed on a project level for consistency with policies and standards in the adopted LUE and UDE. Those policies are intended to improve the overall visual character of the City through new development projects that would shape the urban environment of the City, while preserving existing development that defines its unique aesthetic character. Therefore, potential impacts of the Adaptation Actions related to light and glare would be less than significant, and no mitigation is required.

It should also be noted that the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Program EIR concluded that the LUE would result in a less than significant impact related to light and glare impacts. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Program EIR.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in impacts from light and glare. Therefore, the Safety Element update would have no impact from light and glare, and no mitigation is required.

#### 4.1.7 Level of Significance Prior to Mitigation

The proposed project would result in less than significant impacts related to scenic vistas, visual quality and character, and light and glare, and no mitigation is required.

#### 4.1.8 Compliance Measures and Project Design Features

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action does not include any project design features related to aesthetics.

#### 4.1.9 Mitigation Measures

No mitigation is required for the proposed project.

#### 4.1.10 Level of Significance after Mitigation

There would be no significant unavoidable adverse impacts related to aesthetics, and no mitigation is required.

#### 4.1.11 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for aesthetics. The proposed project does not include physical improvements or development. Future projects to implement CAAP actions would be subject to project-level CEQA review as required. Because the proposed project is a citywide policy/planning action that includes strategies and measures that would apply to future discretionary projects throughout the entire City, the proposed project itself is cumulative in nature.

Cumulative visual impacts would occur if the visual character of the planning area or the immediately adjacent areas would be degraded by the proposed project in combination with other past, present, or reasonably foreseeable projects, thereby having a substantial negative effect on

the surrounding aesthetics, including visual character, views, and light/glare and shade/shadow conditions. The cumulative study area for visual resources for the proposed project is the City's viewshed. The viewshed from the planning area includes vantage points with views of the Pacific Ocean, the Port of Long Beach, the Long Beach marinas, the San Gabriel Mountains, and the Santa Ana Mountains.

As described previously, the CAAP Checklist that will apply to future discretionary projects translates the programmatic CAAP Actions into Tier 1 and Tier 2 measures for incorporation at the project level. Tier 1 measures, or equivalent strategies, are required for all future discretionary projects to ensure that new development and other improvements substantially contribute to the City's GHG reduction pathway quantified in the CAAP and collectively achieve the City's emissions target. Tier 1 measures in the CAAP Checklist ensure implementation of quantified CAAP Actions related to Building and Energy, Transportation, and Waste in order to demonstrate consistency with the CAAP in lieu of a project-specific GHG analysis. The CAAP Checklist also includes Tier 2 measures that would support non-quantified CAAP Actions, as well as the Adaptation Actions. Future discretionary projects that implement these measures to support CAAP Actions or Adaptation Actions are not anticipated to substantially alter the visual character of the planning area, as compared to existing conditions. The site design, landscaping, and architectural design of future discretionary projects that would utilize the CAAP Checklist to demonstrate consistency with the CAAP, and subsequently implement the measures identified in the Checklist, would be required to be consistent with goals, policies, strategies, and development standards established by the adopted UDE, which are intended to avoid, reduce, offset, or otherwise minimized identified potential adverse impacts of the proposed project or provide significant benefits to the community and/or to the physical environment. In addition, all future discretionary projects would also be required to go through project-specific CEQA environmental, as well as design and site plan review and approval processes. Furthermore, future discretionary projects that utilize the CAAP Checklist and subsequently implement the measures required to demonstrate consistency with the CAAP would also be evaluated for consistency with policies and standards in the adopted LUE and UDE, which are intended to improve the overall visual character of the City through new development projects that would shape the urban environment of the City, while preserving existing development that define its unique aesthetic character. Implementation of solar panels, energy-efficiency retrofits, and other improvements included in the measures that would support the CAAP Actions are not expected to be obtrusive so as to significantly affect views from vistas or alter the visual character of the planning areas. In addition, the proposed project does not include any physical development of buildings or structures, and would therefore not cumulatively contribute to visual impacts. No mitigation is required.

In addition, the Adaptation Actions would not be required to meet the City's GHG reduction targets, but are included in the CAAP Checklist as they may be applicable to future discretionary projects and would also help lessen the impacts of climate change on the City. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future discretionary projects to implement Adaptation Actions would be analyzed on a project level for consistency with policies and standards in the adopted LUE and UDE. As those policies are intended to improve the overall visual character of the City, potential impacts of the Adaptation Actions would therefore not cumulatively contribute to visual impacts, and no mitigation is required.

Future discretionary projects that utilize the CAAP Checklist, and subsequently implement the measures required to demonstrate consistency with the CAAP, may result in the introduction of new sources of light and glare within the planning area. As previously stated, measures to support the CAAP Actions that would introduce more lighting, such as safety lighting for pedestrian and bicycle facilities or glare due to additional solar panels, would be implemented consistent with the lighting and development standards in the City's Municipal Code. The City is currently characterized as an urban environment with existing high levels of light pollution, and light and glare emitted by future discretionary projects would be evaluated under CEQA to determine whether it would result in a cumulatively significant visual impact. The proposed project does not include any physical development of buildings or structures, and would therefore not cumulatively contribute to light and glare impacts. No mitigation is required.

## 4.2 AIR QUALITY

This section discusses potential air quality impacts resulting from implementation of the Climate Action and Adaptation Plan (CAAP) and Safety Element Update Project (proposed project). The analysis contained in this section is based on the Draft *Climate Action and Adaptation Plan* (Appendix B), the Draft *Safety Element* (Appendix C), and the *Climate Action and Adaptation Plan Consistency Review Checklist (CAAP Checklist): Technical Support Documentation* (ESA 2022) (Appendix D). As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element Update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Therefore, the analysis in this Subsequent Environmental Impact Report (SEIR) focuses on the potential programmatic level impacts of the CAAP, which includes both CAAP Actions and Adaptation Actions, potential impacts from the measures that support the CAAP Actions required for future discretionary projects that would utilize the CAAP Checklist for CEQA GHG streamlining, and the potential programmatic level impacts of the Safety Element Update.

### 4.2.1 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Initial Study/Notice of Preparation (IS/NOP). For copies of the IS/NOP comment letters, refer to Appendix A of this Draft SEIR. One comment letter included comments related to air quality.

The letter from the Los Angeles County Sanitation Districts (LACSD) received on September 22, 2021, suggested that the LACSD facilities must be sized and phased in a manner that is consistent with the Southern California Association of Governments' (SCAG) regional growth forecasts, as these forecasts are incorporated into the clean air plans prepared by the South Coast Air Quality Management District (SCAQMD). This comment letter did not include any specific requests for topics to be analyzed in this SEIR; however, consistency with applicable air plans is discussed in Section 4.2.7, below, under Threshold 4.2.1.

### 4.2.2 Existing Environmental Setting

The following discussion provides an overview of existing air quality conditions in the region and in the City. Ambient air quality standards and the regulatory framework are summarized and climate, air quality conditions, and typical air pollutant types and sources are also described.

#### 4.2.2.1 Existing Planning Area

The proposed CAAP and Safety Element Update address all land within the City's jurisdictional limits. Throughout this Draft SEIR, these areas are referred to as the "planning area."

The planning area encompasses approximately 50 square miles within the limits of the City of Long Beach (excluding the City of Signal Hill, which is completely surrounded by the City of Long Beach) in the southern region of Los Angeles County. The planning area is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton, Paramount, and Bellflower; and on the east by the Cities of Lakewood, Hawaiian

Gardens, Cypress, Los Alamitos, and Seal Beach. As mentioned, the City of Signal Hill is centrally located within the planning area and is completely surrounded by development in the City of Long Beach.

The planning area is currently developed and consists of a mix of residential, commercial, medical, institutional, industrial, and open space and recreation uses. These uses currently generate criteria air pollutants from natural gas and electricity use for energy, heating and cooking, vehicle trips associated with each land use, and area sources such as landscaping equipment and consumer cleaning products.

#### 4.2.2.2 Regional Air Quality

The planning area is located within the South Coast Air Basin (Basin). The Basin is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Geronio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Basin, as it is a coastal plain with broad valleys and low hills. The Basin lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The usually mild climatological pattern is interrupted by periods of hot weather, winter storms, or Santa Ana winds.

The extent and severity of pollutant concentrations in the Basin is a function of the area's natural physical characteristics (weather and topography) and man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential. The Basin's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of ozone, which is a secondary pollutant that forms through photochemical reactions in the atmosphere. Thus, the greatest air pollution impacts throughout the Basin typically occur from June through September. This condition generally is attributed to the emissions occurring in the Basin, light winds, and shallow vertical atmospheric mixing. These factors reduce the potential for pollutant dispersion causing elevated air pollutant levels. Pollutant concentrations in the Basin vary with location, season, and time of day. Concentrations of ozone, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert.

#### 4.2.2.3 Air Pollutants and Health Effects

Both State and federal governments have established health-based ambient air quality standards for six criteria air pollutants: carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), lead (Pb), and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O<sub>3</sub> and NO<sub>2</sub>, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO<sub>2</sub>, and Pb are considered local pollutants that tend to accumulate in the air locally.

The primary pollutants of concern in the planning area are O<sub>3</sub>, CO, and suspended particulate matter. Significance thresholds established by an air quality district are used to manage total regional and local emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual development projects that would contribute to regional and local emissions and could adversely affect or delay the air basin's projected attainment target goals for nonattainment criteria pollutants.

Because of the conservative nature of the significance thresholds, and the basin-wide context of individual development project emissions, there is no direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like nitrogen oxides (NO<sub>x</sub>) and reactive organic gases (ROG).

Further, by its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to by itself result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, the air quality districts have considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise. These populations are referred to as sensitive receptors.

Air pollutants and their health effects, and other air pollution-related considerations are summarized in Table 4.2.A and are described in more detail below.

**Ozone.** Ozone (O<sub>3</sub>) is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO<sub>x</sub>. The main sources of ROG and NO<sub>x</sub>, often referred to as ozone precursors, are combustion processes (including combustion in motor vehicle engines) and the evaporation of solvents, paints, and fuels. Automobiles are typically the largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

**Table 4.2.A: Sources and Health Effects of Air Pollutants**

Pollutants	Sources	Primary Health Effects
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>Precursor sources:<sup>1</sup> motor vehicles, industrial emissions, and consumer products.</li> </ul>	<ul style="list-style-type: none"> <li>Respiratory symptoms.</li> <li>Worsening of lung disease leading to premature death.</li> <li>Damage to lung tissue.</li> <li>Crop, forest, and ecosystem damage.</li> <li>Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals.</li> </ul>
Particulate Matter Less than 2.5 Microns in Diameter (PM <sub>2.5</sub> )	<ul style="list-style-type: none"> <li>Cars and trucks (especially diesels).</li> <li>Fireplaces, woodstoves.</li> <li>Windblown dust from roadways, agriculture, and construction.</li> </ul>	<ul style="list-style-type: none"> <li>Premature death.</li> <li>Hospitalization for worsening of cardiovascular disease.</li> <li>Hospitalization for respiratory disease.</li> <li>Asthma-related emergency room visits.</li> <li>Increased symptoms, increased inhaler usage.</li> </ul>
Particulate Matter Less than 10 Microns in Diameter (PM <sub>10</sub> )	<ul style="list-style-type: none"> <li>Cars and trucks (especially diesels).</li> <li>Fireplaces, woodstoves.</li> <li>Windblown dust from roadways, agriculture, and construction.</li> </ul>	<ul style="list-style-type: none"> <li>Premature death and hospitalization, primarily for worsening of respiratory disease.</li> <li>Reduced visibility and material soiling.</li> </ul>
Nitrogen Oxides (NO <sub>x</sub> )	<ul style="list-style-type: none"> <li>Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves.</li> </ul>	<ul style="list-style-type: none"> <li>Lung irritation.</li> <li>Enhanced allergic responses.</li> </ul>
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves.</li> </ul>	<ul style="list-style-type: none"> <li>Chest pain in patients with heart disease.</li> <li>Headache.</li> <li>Light-headedness.</li> <li>Reduced mental alertness.</li> </ul>
Sulfur Oxides (SO <sub>x</sub> )	<ul style="list-style-type: none"> <li>Combustion of sulfur-containing fossil fuels.</li> <li>Smelting of sulfur-bearing metal ores.</li> <li>Industrial processes.</li> </ul>	<ul style="list-style-type: none"> <li>Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits.</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>Contaminated soil.</li> </ul>	<ul style="list-style-type: none"> <li>Impaired mental functioning in children.</li> <li>Learning disabilities in children.</li> <li>Brain and kidney damage.</li> </ul>
Toxic Air Contaminants (TACs)	<ul style="list-style-type: none"> <li>Cars and trucks (especially diesels).</li> <li>Industrial sources, such as chrome platers.</li> <li>Neighborhood businesses, such as dry cleaners and service stations.</li> <li>Building materials and products.</li> </ul>	<ul style="list-style-type: none"> <li>Cancer.</li> <li>Reproductive and developmental effects.</li> <li>Neurological effects.</li> </ul>

Source: California Air Resources Board (2018).

<sup>1</sup> Ozone is not generated directly by these sources. Rather, chemicals emitted by these precursor sources react with sunlight to form ozone in the atmosphere.

**Carbon Monoxide.** CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles. CO transport is limited – it disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthy levels that adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated

with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue, impair central nervous system function, and induce angina (chest pain) in persons with serious heart disease. Extremely high levels of CO, such as those generated when a vehicle is running in an unventilated garage, can be fatal.

**Particulate Matter.** Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from humanmade and natural sources. Particulate matter is categorized in two size ranges: PM<sub>10</sub>, for particles less than 10 microns in diameter, and PM<sub>2.5</sub>, for particles less than 2.5 microns in diameter. Motor vehicles are the primary generators of particulates, through tailpipe emissions as well as brake pad, tire wear, and entrained road dust. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of such fine particulates. These fine particulates are small enough to be inhaled into the deepest parts of the human lung and can cause adverse health effects. According to the California Air Resources Board (CARB), studies in the United States and elsewhere have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks, and studies of children's health in California have demonstrated that particle pollution may significantly reduce lung function growth in children.<sup>1</sup> The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer.<sup>2</sup> Statewide attainment of particulate matter standards could reduce premature deaths, hospital admissions for cardiovascular and respiratory disease, asthma-related emergency room visits, and episodes of respiratory illness in California.

**Nitrogen Dioxide.** NO<sub>2</sub> is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO<sub>2</sub>. Aside from its contribution to ozone formation, NO<sub>2</sub> also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO<sub>2</sub> may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO<sub>2</sub> decreases lung function and may reduce resistance to infection.

**Sulfur Dioxide.** SO<sub>2</sub> is a colorless acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO<sub>2</sub> has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. SO<sub>2</sub> also reduces visibility and the level of sunlight at the ground surface.

**Lead.** Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions.

<sup>1</sup> California Air Resources Board (CARB). 2020. *Inhalable Particulate Matter and Health (PM<sub>2.5</sub> and PM<sub>10</sub>)*. Website: [ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health](http://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health) (accessed August 2021).

<sup>2</sup> World Health Organization, International Agency for Research on Cancer (IARC), 2015. *Outdoor Air Pollution*, Volume 109. IARC Monographs on the Evaluation of Carcinogenic Risk to Humans. December 17, 2015.

The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery factories. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the United States Environmental Protection Agency (USEPA) established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of USEPA regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.

**Toxic Air Contaminants.** In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. Some examples of TACs include: benzene, butadiene, formaldehyde, and hydrogen sulfide. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

TACs do not have ambient air quality standards, but are regulated by the USEPA, CARB, and the SCAQMD. In 1998, the CARB identified particulate matter from diesel-fueled engines as a TAC. The CARB has completed a risk management process that identified potential cancer risks for a range of activities and land uses that are characterized by use of diesel-fueled engines.<sup>3</sup> High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (distribution centers, truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter is emitted from mobile sources—primarily “off-road” sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as trucks and buses traveling on freeways and local roadways.

Although not specifically monitored, recent studies indicate that exposure to diesel particulate matter may contribute significantly to a cancer risk (a risk of approximately 500 to 700 in 1,000,000) that is greater than all other measured TACs combined.<sup>4</sup> The CARB Diesel Risk Reduction Plan is intended to substantially reduce diesel particulate matter emissions and associated health risks through introduction of ultra-low-sulfur diesel fuel—a step already implemented—and cleaner-burning diesel engines.<sup>5</sup> The technology for reducing diesel particulate matter emissions from

<sup>3</sup> CARB. 2000. *Fact Sheet – California’s Plan to Reduce Diesel Particulate Matter Emissions*. October. Website: [www.arb.ca.gov/diesel/factsheets/rrpfactsheet.pdf](http://www.arb.ca.gov/diesel/factsheets/rrpfactsheet.pdf) (accessed August 2021).

<sup>4</sup> Bay Area Air Quality Management District (BAAQMD). 2015. *Toxic Air Contaminant Control Program Annual Report, Volume 1*. May. Website: [www.baaqmd.gov/research-and-data/air-toxics/annual-report](http://www.baaqmd.gov/research-and-data/air-toxics/annual-report) (accessed August 2021).

<sup>5</sup> CARB. 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October. Prepared by the Stationary Source Division and Mobile Source Control Division. Website: [www.arb.ca.gov/diesel/documents/rrpFinal.pdf](http://www.arb.ca.gov/diesel/documents/rrpFinal.pdf) (accessed August 2021).

heavy-duty trucks is well established, and both State and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions.

**High Volume Roadways.** Air pollutant exposures and their associated health burdens vary considerably within places in relation to sources of air pollution. Motor vehicle traffic is perhaps the most important source of intra-urban spatial variation in air pollution concentrations. Air quality research consistently demonstrates that pollutant levels are substantially higher near freeways and busy roadways, and human health studies have consistently demonstrated that children living within 100 to 200 meters (328 to 656 feet) of freeways or busy roadways have reduced lung function and higher rates of respiratory disease. At present, it is not possible to attribute the effects of roadway proximity on non-cancer health effects to one or more specific vehicle types or vehicle pollutants. Engine exhaust, from diesel, gasoline, and other combustion engines, is a complex mixture of particles and gases, with collective and individual toxicological characteristics.

#### 4.2.2.4 National and State Ambient Air Quality Standards

Both State and federal governments have established health-based ambient air quality standards for criteria air pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

Both the USEPA and the CARB have established ambient air quality standards for the following common pollutants: CO, O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, Pb, and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. These ambient air quality standards are levels of contaminants that avoid specific adverse health effects associated with each pollutant.

Federal standards include both primary and secondary standards. Primary standards establish limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation, and buildings.<sup>6</sup> State and federal standards for the criteria air pollutants are listed in Table 4.2.B.

**Table 4.2.B: Federal and State Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards <sup>1</sup>		Federal Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> ) <sup>8</sup>	1-Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>9</sup>	24-Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		–		

<sup>6</sup> United States Environmental Protection Agency (USEPA). 2017. Criteria Air Pollutants. October. Website: [www.epa.gov/criteria-air-pollutants](http://www.epa.gov/criteria-air-pollutants) (accessed August 2021).

**Table 4.2.B: Federal and State Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards <sup>1</sup>		Federal Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b> <sup>9</sup>	24-Hour	–		35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>		
<b>Carbon Monoxide (CO)</b>	8-Hour	9.0 ppm (10 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m <sup>3</sup> )	–	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m <sup>3</sup> )		35 ppm (40 mg/m <sup>3</sup> )		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		–		
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b> <sup>10</sup>	Annual Arithmetic Mean	0.03 ppm (57 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	53 ppb (100 µg/m <sup>3</sup> )	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (339 µg/m <sup>3</sup> )		100 ppb (188 µg/m <sup>3</sup> )	–	
<b>Lead (Pb)</b> <sup>12,13</sup>	30-Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	–	–	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m <sup>3</sup> (for certain areas) <sup>l</sup>	Same as Primary Standard	
	Rolling 3-Month Average <sup>i</sup>	–		0.15 µg/m <sup>3</sup>		
<b>Sulfur Dioxide (SO<sub>2</sub>)</b> <sup>11</sup>	24-Hour	0.04 ppm (105 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	–		–	0.5 ppm (1300 µg/m <sup>3</sup> )	
	1-Hour	0.25 ppm (655 µg/m <sup>3</sup> )		75 ppb (196 µg/m <sup>3</sup> ) <sup>11</sup>	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) <sup>11</sup>	–	
<b>Visibility-Reducing Particles</b> <sup>12</sup>	8-Hour	See footnote <sup>14</sup>	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
<b>Sulfates</b>	24-Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
<b>Hydrogen Sulfide</b>	1-Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
<b>Vinyl Chloride</b> <sup>10</sup>	24-Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

Source: Ambient Air Quality Standards (California Air Resources Board 2016).  
Table notes continued on the following page

- <sup>1</sup> California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- <sup>2</sup> National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than one. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current national policies.
- <sup>3</sup> Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- <sup>4</sup> Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.
- <sup>5</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- <sup>6</sup> National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- <sup>7</sup> Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.
- <sup>8</sup> On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- <sup>9</sup> On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- <sup>10</sup> To attain the 1-hour national standard, the three-year average of the annual 98<sup>th</sup> percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- <sup>11</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the three-year average of the annual 99<sup>th</sup> percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- <sup>12</sup> The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- <sup>13</sup> The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- <sup>14</sup> In 1989, the CARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius

µg/m<sup>3</sup> = micrograms per cubic meter

CARB = California Air Resources Board

mg/m<sup>3</sup> = milligrams per cubic meter

ppb = parts per billion

ppm = parts per million

USEPA = United States Environmental Protection Agency

#### 4.2.2.5 Existing Climate and Air Quality

The following provides a discussion of the local and regional air quality and climate in the City of Long Beach.

**Climate and Meteorology.** Air quality in Long Beach is affected by various emission sources (e.g., mobile and industry) as well as atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States gives the Basin some of the highest pollutant concentrations in the country.

The annual average temperature varies throughout the Basin, ranging from the low- to middle-60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas, including the City of Long Beach, show less variability in annual minimum and maximum temperatures than inland areas. December is typically the coldest month, and July and August are typically the warmest months in this area of the Basin.<sup>7</sup>

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunderstorms in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. The monthly average rainfall in Long Beach typically varies from 2.90 inches in January February to 0.02 inch in July with an annual total of 12.01 inches.<sup>8</sup> Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high, which is the semi-permanent high-pressure area of the north Pacific Ocean and is the dominating factor in California weather. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid-afternoon to late afternoon on hot summer days when the smog appears to clear up suddenly. Winter inversions frequently break by midmorning.

Winds in Long Beach blow predominantly from the west–northwest, with relatively low velocities.<sup>9</sup> Wind speeds in Long Beach average between 7 miles per hour (mph) and 4 mph. Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north, or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months and disperse air contaminants. The Santa Ana conditions tend to last for several days at a time.<sup>10</sup>

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<sup>7</sup> Western Regional Climate Center, 2015. Website: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5085> (accessed August 25, 2021).

<sup>8</sup> Ibid.

<sup>9</sup> Iowa Environmental Mesonet. 2021. Windrows. Website: [https://mesonet.agron.iastate.edu/sites/windrose.phtml?—network=CA\\_—ASOS&station=LGB](https://mesonet.agron.iastate.edu/sites/windrose.phtml?—network=CA_—ASOS&station=LGB). (accessed August 25, 2021).

<sup>10</sup> Ibid.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollution concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are CO and NO<sub>x</sub> because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO<sub>x</sub> to form photochemical smog or ozone.

**Attainment Status.** CARB is required to designate areas of the State as attainment, nonattainment, or unclassified for all State standards. An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An unclassified designation signifies that data do not support either an attainment or nonattainment status. The California Clean Air Act (CCAA) divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The USEPA designates areas for O<sub>3</sub>, CO, and NO<sub>2</sub> as one of the following: does not meet the primary standards, or cannot be classified, or better than national standards. For SO<sub>2</sub>, areas are designated as: does not meet the primary standards, does not meet the secondary standards, cannot be classified, or better than national standards. Table 4.2.C provides a summary of the attainment status for the Basin with respect to National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS).

**Table 4.2.C: South Coast Air Basin Attainment Status**

Pollutant	State	Federal
O <sub>3</sub> 1 hour	Nonattainment	Extreme Nonattainment
O <sub>3</sub> 8 hour	Nonattainment	Extreme Nonattainment
PM <sub>10</sub>	Nonattainment	Attainment/Maintenance
PM <sub>2.5</sub>	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment/Maintenance
NO <sub>2</sub>	Attainment	Attainment/Maintenance
SO <sub>2</sub>	N/A	Attainment/Unclassified
Lead	Attainment	Attainment <sup>1</sup>
All others	Attainment/Unclassified	Attainment/Unclassified

Source: South Coast Air Quality Management District (2016).

<sup>1</sup> Except in Los Angeles County.

CO = carbon monoxide

N/A = not applicable

NO<sub>2</sub> = nitrogen dioxide

O<sub>3</sub> = ozone

PM<sub>10</sub> = particulate matter less than 10 microns in size

PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

SO<sub>2</sub> = sulfur dioxide

**Air Quality Monitoring Results.** Air quality monitoring stations are located throughout the nation and are maintained by the local air pollution control district and State air quality regulating agencies. The SCAQMD, together with CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring stations closest to and within the project area are the 2425 Webster Street ambient air quality monitoring station, the 1710 E. 20th Street ambient air quality monitoring station, and the 1305 E. Pacific Coast Highway ambient air quality monitoring station in Long Beach, because they monitor the most air pollutant data in the City.

Pollutant monitoring results for years 2018 to 2020 at the Long Beach ambient air quality monitoring stations, shown in Table 4.2.D, indicate that air quality in the vicinity of the City has generally been good. As indicated in the monitoring results, the federal PM<sub>10</sub> standard had no exceedances in 2018, one exceedance in 2019, and no exceedances in 2020. The State PM<sub>10</sub> standard was exceeded four times in 2018, four times in 2019, and three times in 2020. PM<sub>2.5</sub> levels exceeded the federal standard seven times in 2018, with no exceedances in 2019, and ten exceedances in 2020. Neither State nor federal 1-hour ozone standards nor the State 8-hour ozone standards were exceeded in 2018 or 2019, but both the State and federal ozone 1-hour and 8-hour standards were exceeded four times in 2020. In addition, the CO, SO<sub>2</sub>, and NO<sub>2</sub> standards were also not exceeded in this area during the 3-year period.

**Existing City of Long Beach Criteria Pollutant Emissions Inventory.** Table 4.2.E identifies the existing criteria air pollutant emissions inventory of the City of Long Beach using emission rates for the year 2018 (existing conditions) as included in the Land Use and Urban Design Elements Environmental Impact Report (2019 Certified Program EIR). The inventory is based on demographics in the City. The year 2018 inventory represents the estimated emissions generated by the existing land uses using the baseline year 2018 emission factors for on-road vehicles, energy sources, and area sources. Area emissions refer to emissions occurring from hearths, consumer products, area architectural coatings, and landscaping equipment. Energy use emissions refer to emissions occurring from building electricity and non-hearth natural gas usage.

**Toxic Air Contaminant Trends.** In 1984, the CARB adopted regulations to reduce TAC emissions from mobile and stationary sources, as well as consumer products. A CARB study showed that ambient concentrations and emissions of the seven TACs responsible for the most cancer risk from airborne exposure declined by 76 percent between 1990 and 2012.<sup>11</sup> Concentrations of diesel particulate matter, a key TAC, declined by 68 percent between 1990 and 2012, despite a 31 percent increase in State population and an 81 percent increase in diesel vehicle miles traveled (VMT), as shown on Figure 4.2-1, below. The study also found that the significant reductions in cancer risk to California residents from the implementation of air toxics controls are likely to continue.

The USEPA and the CARB regulate direct emissions from motor vehicles. The Bay Area Air Quality Management District (BAAQMD) is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

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<sup>11</sup> Propper, Ralph, et al. 2015. Ambient and Emission Trends of Toxic Air Contaminants in California. *American Chemical Society: Environmental Science & Technology*. Website: [pubs.acs.org/doi/full/10.1021/acs.est.5b02766](https://pubs.acs.org/doi/full/10.1021/acs.est.5b02766) (accessed August 2021).

**Table 4.2.D: Ambient Air Quality at the Long Beach Monitoring Stations**

Pollutant	Standard	2018	2019	2020
<b>Carbon Monoxide (CO)</b>				
Maximum 1-hour concentration (ppm)		4.7	3.0	ND
Number of days exceeded:	State: > 20 ppm	0	0	ND
	Federal: > 35 ppm	0	0	ND
Maximum 8-hour concentration (ppm)		2.1	2.1	ND
Number of days exceeded:	State: > 9 ppm	0	0	ND
	Federal: > 9 ppm	0	0	ND
<b>Ozone (O<sub>3</sub>)<sup>1</sup></b>				
Maximum 1-hour concentration (ppm)		0.074	0.075	0.105
Number of days exceeded:	State: > 0.09 ppm	0	0	4
Maximum 8-hour concentration (ppm)		0.063	0.068	0.083
Number of days exceeded:	State: > 0.07 ppm	0	0	4
	Federal: > 0.07 ppm	0	0	4
<b>Coarse Particulates (PM<sub>10</sub>)</b>				
Maximum 24-hour concentration (µg/m <sup>3</sup> )		84.0	155.8	61.6
Number of days exceeded:	State: > 50 µg/m <sup>3</sup>	4	4	3
	Federal: > 150 µg/m <sup>3</sup>	0	1	0
Annual arithmetic average concentration (µg/m <sup>3</sup> )		32.5	29.5	31.8
Exceeded for the year:	State: > 20 µg/m <sup>3</sup>	Yes	Yes	Yes
	Federal: > 50 µg/m <sup>3</sup>	No	No	No
<b>Fine Particulates (PM<sub>2.5</sub>)<sup>2</sup></b>				
Maximum 24-hour concentration (µg/m <sup>3</sup> )		77.3	31.2	72.6
Number of days exceeded:	Federal: > 35 µg/m <sup>3</sup>	7	0	10
Annual arithmetic average concentration (µg/m <sup>3</sup> )		11.6	10.6	12.2
Exceeded for the year:	State: > 12 µg/m <sup>3</sup>	No	No	Yes
	Federal: > 15 µg/m <sup>3</sup>	No	No	No
<b>Nitrogen Dioxide (NO<sub>2</sub>)<sup>1</sup></b>				
Maximum 1-hour concentration (ppm)		0.085	0.082	0.075
Number of days exceeded:	State: > 0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.017	0.016	0.013
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>				
Maximum 1-hour concentration (ppm)		0.011	0.009	ND
Number of days exceeded:	State: > 0.25 ppm	0	0	ND
Maximum 24-hour concentration (ppm)		0.002	0.002	ND
Number of days exceeded:	State: > 0.04 ppm	0	0	ND
	Federal: > 0.14 ppm	0	0	ND
Annual arithmetic average concentration (ppm)		0.0009	0.0007	ND
Exceeded for the year:	Federal: > 0.030 ppm	No	No	ND

Sources: CARB (2021) and USEPA (2021).

<sup>1</sup> 2018 and 2019 data were taken from the 2425 Webster Street Long Beach monitoring station, and 2020 data were taken from the 1710 E. 20th Street Long Beach monitoring station.

<sup>2</sup> Data were taken from the 1305 E. Pacific Coast Highway Long Beach monitoring station.

µg/m<sup>3</sup> = micrograms per cubic meter

CARB = California Air Resources Board

ND = No data. There were insufficient (or no) data to determine the value.

ppm = parts per million

USEPA = United States Environmental Protection Agency

**Table 4.2.E: Ambient Air Quality at the Long Beach 2425 Webster Street Monitoring Station**

Sector	Criteria Air Pollutant Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Existing Year 2018</b>						
Transportation (2018 emission factors) <sup>1</sup>	4,123	38,622	8,474	85	1,827	541
Energy: Residential <sup>2</sup>	83	838	357	7	58	58
Energy: Commercial + Industrial <sup>2</sup>	24	106	89	1	7	7
Energy: Public Facilities/Institutional <sup>2</sup>	7	65	55	0	5	5
Area Source: Residential <sup>3</sup>	8,837	2,990	46,580	82	5,478	5,478
Area Source: Commercial + Industrial <sup>3</sup>	952	1	1	0	1	1
Area Source: Public Facilities/Institutional <sup>3</sup>	295	0	1	0	0	0
<b>Total Emissions for Existing Land Uses</b>	<b>14,321</b>	<b>42,621</b>	<b>55,556</b>	<b>174</b>	<b>7,377</b>	<b>6,091</b>

Source: Compiled by LSA (March 2019).

<sup>1</sup> EMFAC2017 based on daily vehicle miles traveled (VMT) provided by LSA.

<sup>2</sup> Energy use calculated using CalEEMod version 2016.3.2

<sup>3</sup> Estimated using CalEEMod version 2016.3.2. Area source emissions include landscaping and consumer product emissions. Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the Land Use Element would require permitting and would be subject to further study pursuant to SCAQMD Regulation XIII, New Source Review. Because the nature of those emissions cannot be determined at this time and are subject to further regulation and permitting, they are not considered for purposes of this analysis.

CalEEMOD = California Emissions Estimator Model

CO = carbon monoxide

lbs/day = pounds per day

NO<sub>x</sub> = nitrogen oxides

PM<sub>10</sub> = particulate matter less than 10 microns in size

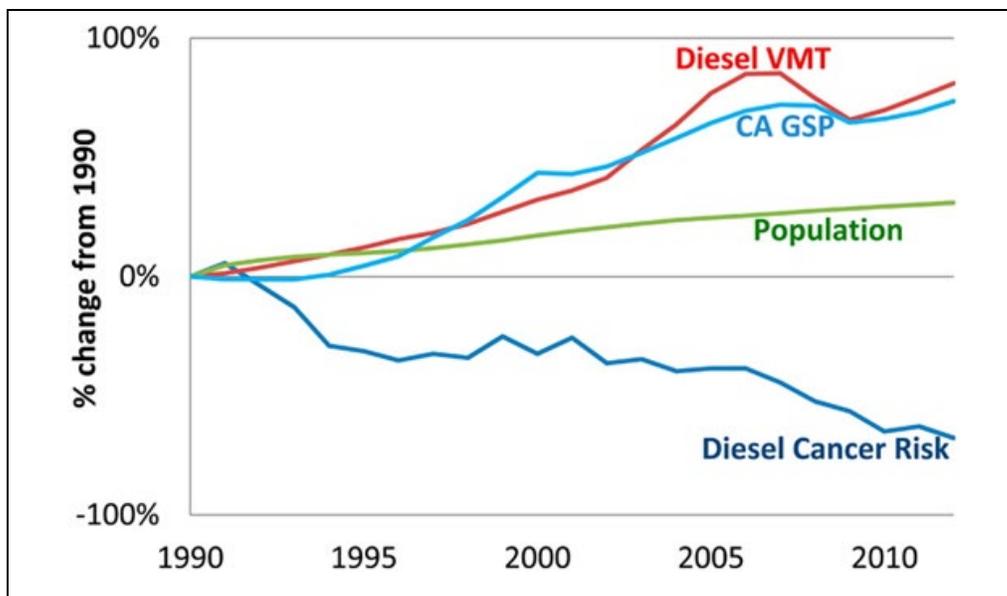
PM<sub>2.5</sub> = particulate matter less than 2.5 microns in size

SCAQMD = South Coast Air Quality Management District

SO<sub>x</sub> = sulfur oxides

VOC = volatile organic compound

**Figure 4.2-1: California Population, Gross State Product (GSP), Diesel Cancer Risk, and Diesel Vehicle Miles Traveled (VMT) Regulatory Context**



Source: Ambient and Emission Trends of Toxic Air Contaminants in California (Propper, Ralph, et al. 2015).

### 4.2.3 Regulatory Framework

The USEPA and CARB regulate direct emissions from motor vehicles. The SCAQMD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

The applicable federal, State, regional, and local regulatory framework is discussed below.

#### 4.2.3.1 Federal Regulations

**Federal Clean Air Act.** At the federal level, the USEPA has been charged with implementing national air quality programs. The USEPA air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was enacted in 1963. The FCAA was amended in 1970, 1977, and 1990.

The FCAA required the USEPA to establish primary and secondary NAAQS and required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The USEPA has responsibility to review all state SIPs to determine conformity with the mandates of the FCAA and determine if implementation will achieve air quality goals. If the USEPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area, which imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated timeframe may result in sanctions on transportation funding and stationary air pollution sources in the air basin.

The USEPA is also required to develop National Emission Standards for Hazardous Air Pollutants, which are defined as those which may reasonably be anticipated to result in increased deaths or serious illness, and which are not already regulated. An independent science advisory board reviews the health and exposure analyses conducted by the USEPA on suspected hazardous pollutants prior to regulatory development.

#### 4.2.3.2 State Regulations

**California Clean Air Act.** The California Clean Air Act (CCAA), adopted in 1988, requires that all air districts in the State achieve and maintain the CAAQS by the earliest practical date. The CCAA specifies that districts should focus on reducing the emissions from all air pollutant emission sources and provides districts with the authority to regulate indirect sources.

**California Air Resources Board.** The California Air Resources Board (CARB), a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and State air pollution control programs within California, including implementation of the CCAA described above. In this capacity, CARB conducts research, sets the CAAQS (see Table 4.2-D), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB is also primarily responsible for developing and implementing air pollution control plans to achieve and maintain the NAAQS. The CARB is primarily responsible for statewide

pollution sources and produces a major part of the SIP. Local air districts provide additional strategies for sources under their jurisdiction. The CARB combines these data and submits the completed SIP to the USEPA.

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs (13 CCR Section 2485). In 2008, CARB approved the Truck and Bus regulation to reduce NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from existing diesel vehicles operating in California (13 CCR Section 2025). CARB also promulgated emissions standards for off-road diesel construction equipment of greater than 25 horsepower, such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by the CARB on July 26, 2007, aims to reduce emissions by the installation of diesel soot filters and encouraging the retirement, replacement, or repowering of older, dirtier engines with newer emission-controlled models (13 CCR Section 2449). In 2012, CARB approved the Advanced Clean Cars Program, which includes low-emission vehicle (LEV) and zero-emission vehicle regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles.

Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control and air quality management districts), establishing CAAQS (which are more stringent than the NAAQS), determining and updating area designations and maps, and setting emissions standards for mobile sources, consumer products, small utility engines, and off-road vehicles. The CARB Diesel Risk Reduction Plan is intended to substantially reduce diesel particulate matter emissions and associated health risks through introduction of ultra-low-sulfur diesel fuel, a step already implemented, and cleaner-burning diesel engines.<sup>12</sup>

Because of the robust evidence relating proximity to roadways and a range of non-cancer and cancer health effects, the CARB also created guidance for avoiding air quality conflicts in land use planning in its *Air Quality and Land Use Handbook: A Community Health Perspective* (Air Quality and Land Use Handbook).<sup>13</sup> In its guidance, the CARB advises that new sensitive uses (e.g., residences, schools, daycare centers, playgrounds, and hospitals) not be located within 500 feet of a freeway or urban roads carrying 100,000 vehicles per day, or within 1,000 feet of a distribution center (warehouse) that accommodates more than 100 trucks or more than 90 refrigerator trucks per day.

The CARB guidance suggests that the use of these guidelines be customized for individual land use decisions and take into account the context of proposed development projects. The Air Quality and Land Use Handbook specifically states that these recommendations are advisory and acknowledges that land use agencies must balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

**Diesel Commercial Vehicle Idling and Engine Regulations.** Title 13 of the California Code of Regulations (CCR) Section 2485 requires the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction to be limited to five minutes at any location. In addition,

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<sup>12</sup> CARB. 2000b, op. cit.

<sup>13</sup> California Environmental Protection Agency and CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April. Website: [www.arb.ca.gov/ch/handbook.pdf](http://www.arb.ca.gov/ch/handbook.pdf) (accessed August 2021).

Section 93115 of Title 17 of the regulations states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

**Nuisance Regulations.** California Health and Safety Code Section 41700 states, “a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause injury or damage to business or property.” This section also applies to objectionable odors.

#### 4.2.3.3 Regional Regulations

**South Coast Air Quality Management District.** The SCAQMD has jurisdiction over most air quality matters in the Basin. This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. Los Angeles County is a subregion of the SCAQMD jurisdiction. The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin and is tasked with implementing certain programs and regulations required by the Federal Clean Air Act (FCAA) and the California Clean Air Act (CCAA). The SCAQMD prepares plans to attain State and NAAQS. SCAQMD is directly responsible for reducing emissions from stationary (area and point) sources. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

- **Regulation IV - Prohibitions:** This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air pollutant emissions, fuel contaminants, start-up/shutdown exemptions, and breakdown events.
- **Regulation XI - Source Specific Standards:** Regulation XI sets emissions standards for different sources including, but not limited to, coating of metal parts, architectural coatings, restaurant operations, and solvent cleaning operations.
- **Regulation XIV – Toxics and Other Non-Criteria Pollutants:** Regulation XIV sets limits for sources that emit toxic air contaminants (TACs), including asbestos emissions, emissions from cooling towers, fumigation processes, medical waste incinerators, lead, and other sources of non-criteria pollutants.

The SCAQMD is responsible for demonstrating regional compliance with ambient air quality standards but has limited direct involvement in reducing emissions from fugitive, mobile, and natural sources. To that end, the SCAQMD works cooperatively with CARB, SCAG, county transportation commissions, local governments, and other federal and State government agencies. It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs) to meet the CAAQS and NAAQS. SCAQMD and SCAG are responsible for formulating and implementing the AQMP for the South Coast Air Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. Every several years, SCAQMD

prepares a new AQMP, updating the previous plan and the 20-year horizon.<sup>14</sup> The Final 2016 Air Quality Management Plan is the currently adopted AQMP. Key elements of the Final 2016 AQMP include the following:

- Calculating and taking credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality objectives
- Seeking new partnerships and significant funding for incentives to accelerate deployment of zero-emission and near-zero emission technologies
- Enhanced socioeconomic assessment, including an expanded environmental justice analysis
- Attainment of the 24-hour PM<sub>2.5</sub> standard in 2019 with no additional measures
- Attainment of the annual PM<sub>2.5</sub> standard by 2025 with implementation of a portion of the O<sub>3</sub> strategy
- Attainment of the 1-hour O<sub>3</sub> standard by 2022 with no reliance on “black box” future technology (Federal Clean Air Act [FCAA] Section 182(e)(5) measures)

**SCAQMD Air Quality Guidance Documents.** SCAQMD’s *CEQA Air Quality Handbook* (SCAQMD 1993) provides local governments with guidance for analyzing and mitigating project-specific air quality impacts, including standards, methodologies, and procedures for conducting air quality analyses in EIRs. The analysis set forth in this Draft SEIR is a programmatic-level analysis for the CAAP and Safety Element Update. Therefore, the *CEQA Air Quality Handbook* was not utilized in the preparation of this programmatic analysis; however, it would be used in the preparation of project-level analysis for future discretionary projects that would implement components of the CAAP, such as CAAP Actions, Adaptation Actions, or new development that would utilize the CAAP Checklist for CEQA GHG streamlining.

SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates the requirements of the Assembly Bill (AB) 2588 program, including implementation of risk reduction plans for significant risk facilities.

**Southern California Association of Governments.** SCAG is a council of governments for Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura Counties. It is a regional planning agency

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<sup>14</sup> South Coast Air Quality Management District (SCAQMD). 2016. Final 2016 Air Quality Management Plan. March.

and serves as a forum for regional issues relating to transportation, the economy and community development, and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With regard to air quality planning, SCAG prepares the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP), which address regional development and growth forecasts and form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP, RTIP, and AQMP are based on projections originating within local jurisdictions.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan (RCP) provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The RCP is a framework for decision-making for local governments, assisting them in meeting federal and State mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes. Policies within the RCP include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

On April 7, 2016, SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Using growth forecasts and economic trends, the RTP provides a vision for transportation throughout the region for the next 20 years. It considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The SCS is a newly required element of the RTP, which integrates land use and transportation strategies to achieve CARB emissions reduction targets. The inclusion of the SCS is required by Senate Bill (SB) 375, which was enacted to reduce greenhouse gas (GHG) emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. The RTP/SCS would successfully achieve and exceed the GHG emission-reduction targets set by CARB by achieving an 8 percent reduction by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 compared to the 2005 level on a per capita basis. This RTP/SCS also meets criteria pollutant emission budgets set by the USEPA.

SCAG recently adopted an updated strategy, the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal) on September 3, 2020. Connect SoCal is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal is an important planning document for the region, allowing project sponsors to qualify for federal funding, and takes into account operations and maintenance costs to ensure reliability, longevity, and cost effectiveness.

Connect SoCal, the updated 2020–2045 RTP/SCS, was adopted by SCAG in September 2020. While this version is the most up to date, the 2016–2040 RTP/SCS was the applicable plan at the time that the City's emissions inventory was undertaken.

#### 4.2.3.4 Local Regulations

**City of Long Beach General Plan Air Quality Element.** The adopted City of Long Beach General Plan addresses air quality in the Air Quality Element and contains goals and policies and actions in relation to government organization roles and responsibilities, ground transportation, air transportation, land use, particulate emissions, energy conservation, and education. The following goals and policies related to air quality are presented in the Air Quality Element<sup>15</sup> and are applicable to the proposed project:

**GOAL 1:** Effective coordination of air quality improvement efforts in the South Coast Air Basin, the Southeast Los Angeles County (SELAC) subregion of SCAG, and other agencies.

- **Policy 1.1:** Establish a Coordinated Approach. Coordinate with other jurisdictions in the South Coast Air Basin a continuation of the consortium to establish air quality plans and implementation programs where practical.
- **Policy 1.2:** Encourage Community Participation. Involve environmental groups, the business community, special interests, and the general public in the formulation and implementation of programs that effectively reduce airborne pollutants.

**GOAL 2:** A diverse and efficient ground transportation system that minimizes air pollutant emissions.

- **Policy 2.1.1:** Reduce Vehicle Trips. Use incentives, regulations, and transportation demand management techniques, in cooperation with other jurisdictions in the South Coast Air Basin to eliminate vehicle trips that would otherwise occur.
- **Policy 2.1.2:** Reduce Vehicle Miles Traveled. Use incentives, regulations, and transportation demand management in cooperation with other jurisdictions in the South Coast Air Basin, to reduce vehicle miles traveled.
- **Policy 2.1.3:** Increase Cost-Effectiveness of Transportation and Parking Systems. Make cost-effective improvements to transportation and parking systems that will reduce traffic congestion and resulting emissions.
- **Policy 2.3.1:** Expand Transit in the City and the Region. Cooperate in efforts to expand all forms of mass transit within the City and the South Coast Air Basin.
- **Policy 2.4.1:** Promote Non-Motorized Transportation. Promote convenient and continuous bicycle paths and pleasant pedestrian environments that will encourage non-motorized travel within the City.

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<sup>15</sup> City of Long Beach. 1996. Long Beach General Plan. December. Website: <https://www.longbeach.gov/lbds/planning/advance/general-plan/> (accessed August 2021).

- **Policy 2.6.2:** Fleet Conversion to Clean Fuels. Play a leadership role in the conversion to clean fuels by promoting the increased use of compressed natural gas (CNG), electric vehicles, and other alternative fuels.

**GOAL 5:** A pattern of land uses that can be efficiently served by a diversified transportation system and that directly and indirectly minimizes air pollutants.

- **Policy 5.1:** Manage Growth. Regulate land use and promote development in a manner that will support established transit services and reduce the need for the automobile.
- **Policy 5.2:** Balance Growth. Improve the balance between jobs and housing to create a more efficient urban form.

**GOAL 7:** Reduce emissions through reduced energy consumption.

- **Policy 7.1:** Energy Conservation. Reduce energy consumption through conservation improvements and requirements.
- **Policy 7.2:** Recycle Wastes. Promote local recycling of wastes and the use of recycled materials.

**City of Long Beach General Plan Land Use Element.** The General Plan LUE<sup>16</sup> is intended to guide growth and future development through horizon year 2040. Implementation of the LUE is centered on developing and adopting a new set of zones to implement the policy direction of the LUE in order to guide Long Beach to a more sustainable future, improve mobility choices, expand transit access, improve air quality, reduce greenhouse gas emissions, and accommodate growth projections, in accordance with State law. The following goals, strategies, and policies related to air quality are presented in the LUE and are applicable to the proposed project.

**STRATEGY No. 1:** Support sustainable urban development patterns.

- **LU Policy 1-1:** Promote sustainable development patterns and development intensities that use land efficiently and accommodate and encourage walking.
- **LU Policy 1-3:** Require sustainable design strategies to be integrated into public and private development projects.
- **LU Policy 1-4:** Require electric vehicle charging stations to be installed in new commercial, industrial, institutional, and multiple-family residential development projects. Require that all parking for single-unit and two-unit residential development projects be capable of supporting future electric vehicle supply equipment.

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<sup>16</sup> City of Long Beach. 2019. Long Beach General Plan Land Use Element. December. Website: <https://www.longbeach.gov/lbds/planning/advance/general-plan/> (accessed July 19, 2021).

- **LU Policy 1-6:** Require that new building construction incorporate solar panels, vegetated surface, high albedo surface, and/or similar roof structures to reduce net energy usage and reduce the heat island effect.
- **LU Policy 1-7:** Encourage neighborhood-serving retail, employment, and entertainment destinations in new mixed-use projects to create local, walkable daily trip destinations.

**STRATEGY No. 11:** Create healthy and sustainable neighborhoods.

- **LU Policy 11-2:** Provide for a wide variety of creative, affordable, and sustainable land use solutions to help resolve air, soil, and water pollution, energy consumption, and resource depletion issues.
- **LU Policy 11-5:** Ensure neighborhoods are accessible to open spaces, parks, trails, and recreational programs that encourage physical activity and walkability.

**STRATEGY No. 16:** Protect neighborhoods from adverse environmental conditions.

- **LU Policy 16-2:** Continue to work with the State, the Port of Los Angeles, and other agencies and organizations to improve air quality around the ports and reduce vessel, truck, rail, and other equipment emissions from port operations.
- **LU-M-55:** Continue to develop and implement innovative programs aimed at reducing the air pollutants from port operations (e.g., San Pedro Bay Clean Air Action Plan, Clean Truck Programs, Main Engine Low-Sulfur Fuel Incentive Program, and Shoreside Electricity).

#### 4.2.4 Thresholds of Significance

The following thresholds of significance are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact with respect to air quality if it would:

- Threshold 4.2.1:** Conflict with or obstruct implementation of the applicable air quality plan;
- Threshold 4.2.2:** Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard;
- Threshold 4.2.3:** Expose sensitive receptors to substantial pollutant concentrations; or
- Threshold 4.2.4:** Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

#### 4.2.5 Project Impacts

Section 3.4.3 of Chapter 3.0 (Project Description), provides an overview of the CAAP, including a list of proposed GHG emission reduction actions (CAAP Actions) that would be implemented by the CAAP, a description of the CAAP Checklist, which includes measures to support CAAP Actions for future discretionary projects, and types of future improvements identified as Adaptation Actions. None of the actions or measures described in the CAAP or CAAP Checklist indicate where specific improvements would be constructed, their size, or their specific characteristics. As a programmatic document, this Draft SEIR does not speculate on the individual environmental impacts of specific projects that would implement the proposed CAAP, and future discretionary projects to implement the CAAP would be subject to project-level CEQA review as required. However, implementation of the CAAP is considered as part of this analysis to the degree specific information about implementation is known. Consistent with the requirements of *State CEQA Guidelines* Section 15168, this Draft SEIR provides a program-level discussion of the impacts of implementing the CAAP, including CAAP Actions, Adaptation Actions, and the CAAP Checklist, that could result, rather than project-level or site-specific physical impacts of individual future projects that may be facilitated by the proposed CAAP.

While adoption of the CAAP would result in long-term reductions in GHG emissions, which may also result in long-term reductions in operational air pollutant emissions, future discretionary projects to support CAAP Actions implemented by the City, private developers, or other entities may facilitate the construction of new or remodeled buildings and facilities that could result in short-term construction-related air pollutant emissions. Implementation of the CAAP may also lead to construction of new facilities or programs that may have the potential to produce operational air pollutant emissions.

**Threshold 4.2.1: Would the project conflict with or obstruct implementation of the applicable air quality plan?**

**CAAP: Less Than Significant Impact.** The planning area of the proposed project is located within the Basin and is within the jurisdiction of the SCAQMD. Basin-wide air pollution levels are monitored by the SCAQMD through the AQMP. The current regional AQMP is the 2016 AQMP, approved by the SCAQMD on March 3, 2017. Key elements of the 2016 AQMP include the following:

- Calculating and taking credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality objectives
- Seeking new partnerships and significant funding for incentives to accelerate deployment of zero-emission and near-zero emission technologies
- Enhanced socioeconomic assessment, including an expanded environmental justice analysis

- Attainment of the 24-hour PM<sub>2.5</sub> standard in 2019 with no additional measures
- Attainment of the annual PM<sub>2.5</sub> standard by 2025 with implementation of a portion of the O<sub>3</sub> strategy
- Attainment of the 1-hour O<sub>3</sub> standard by 2022 with no reliance on “black box” future technology (Federal Clean Air Act [FCAA] Section 182(e)(5) measures)

The AQMP control measures and related emissions reduction estimates are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections. The AQMP uses the assumptions and projections of local planning agencies to determine control strategies for regional compliance status. Since the AQMP is based on local land use plans, projects that are deemed consistent with local land use plans are found to be consistent with the AQMP. CEQA requires that general plans and projects be evaluated for consistency with the AQMP using the two key indicators for consistency with the AQMP.

- **Indicator 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the AQMP.
- **Indicator 2:** Whether the project would exceed the assumptions in the AQMP. The AQMP strategy is, in part, based on projections from local general plans.

**Indicator 1:** The proposed CAAP was included as Mitigation Measure GHG-1 in the 2019 Certified Program EIR, and once adopted, will serve as a qualified climate action plan pursuant to CEQA. The proposed project would be implemented through future discretionary projects and ministerial actions to implement the proposed CAAP Actions and Adaptation Actions, as well as through the application of the CAAP Checklist (Appendix D) to allow for CEQA GHG streamlining. Additional analysis will be needed to determine the potential impacts of how these actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA, as required. Implementation of the proposed project may also include improvements that are not subject to discretionary action or CEQA review; however, future actions not subject to CEQA review are not considered in this programmatic CEQA document.

In order to demonstrate consistency with the proposed CAAP, future projects utilizing the CAAP Checklist would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would help achieve the City’s GHG emissions targets. While many measures to reduce GHG emissions may also result in a reduction of air quality emissions, the CAAP Checklist does not provide for CEQA streamlining for any topics other than GHGs. A project-level air quality emissions analysis would be required for all future discretionary projects, regardless of consistency with the CAAP.

Each of the CAAP Actions provides details on implementing the GHG reduction strategies, including the party or parties responsible for implementation. The CAAP Actions also include GHG reduction

strategies that apply to the City itself. For future development projects seeking to use the CAAP Checklist for CEQA GHG streamlining, the City will determine whether: (a) the project is consistent; (b) the project with conditions would be consistent; (c) the Tier 1 and Tier 2 measures are relevant for new development, but not the subject project; or (d) the project includes one or more replacement strategies that would be equally or more effective in reducing GHG emissions, and such replacement strategy or strategies are not included in the proposed CAAP or required by any other regulation, standard, design criteria, or other existing requirement. As described above, projects that are deemed consistent with local land use plans would also be consistent with the AQMP.

The proposed CAAP is a comprehensive planning document outlining the City's proposed approach both to address climate impacts in Long Beach and to reduce the City's impact on the climate by reducing future GHG emissions. Several CAAP Actions, Tier 1 and Tier 2 measures that support the CAAP Actions and Adaptation Actions included in the proposed CAAP, would actively reduce air pollution from both stationary and mobile pollutant sources as a component of the broader strategies that would reduce energy consumption and VMT. As described in Section 3.4.4 of this Draft SEIR, the proposed CAAP includes seven Adaptation Actions for types of future projects specifically related to reducing air pollution from a variety of sources. All future discretionary projects would be subject to project-level CEQA analysis to determine if construction and/or operational air quality emissions are consistent with this indicator. As a programmatic planning document that does not constitute approval for any physical improvements or development and does not alter the land use designations or development assumptions of the General Plan buildout condition, the proposed project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the AQMP. Therefore, the proposed project is considered consistent with Indicator 1.

It should be noted that the proposed CAAP was included as Mitigation Measure GHG-1 for the approved Land Use and Urban Design Elements Project, which was determined to not be consistent with Indicator 1. While the Approved Project was also a program-level document, the Approved Project included land use designations and zoning changes that would directly alter the land use buildout and housing development anticipated within the City. The proposed CAAP would not alter the emissions anticipated under the General Plan buildout conditions and does not alter the conclusions of the 2019 Certified Program EIR.

**Indicator 2:** The AQMP is based on projections in population, employment, and VMT in the Basin projected by SCAG. SCAG projections for the City's land uses are partially based on the current adopted General Plan. Implementation of the proposed project does not include any physical development and would not result in higher population or generate additional employment for the City compared to SCAG forecasts. As described above, the proposed CAAP does not alter land use designations or the development assumptions of the General Plan buildout. The 2019 Certified Program EIR concluded that the Approved Project was consistent with the AQMP. The proposed CAAP includes CAAP Actions related to Building and Energy, such as access to renewably generated electricity, Transportation, such as expansion of the bicycle and pedestrian network and other measures to reduce VMT, and Waste, such as organic-waste collection programs. The CAAP is intended to meet the City's GHG reduction targets based on the existing development and

population projects anticipated in the adopted LUE through future projects that implement CAAP Actions or that utilize Tier 1 and Tier 2 measures to support CAAP Actions. Therefore, implementation of proposed CAAP would not alter the development assumptions of the General Plan and would result in reductions in VMT, consistent with the goals of the adopted LUE and AQMP. Future discretionary projects that would utilize the CAAP Checklist for GHG streamlining and would also be reviewed for consistency with the adopted LUE through Step 1 of the CAAP Checklist. Projects determined to be consistent with the adopted LUE would also be consistent with SCAG's forecast and the AQMP. As described in Section 3.4.4 of this Draft SEIR, the proposed CAAP also includes seven Adaptation Actions for types of future projects specifically related to reducing air pollution from a variety of sources. Based on the requirements for consistency with emission control strategies in the AQMP, the proposed CAAP would be consistent with the 2016 AQMP's land use policies aimed at reducing air emissions and would not increase population or employment in the City. The proposed project is therefore considered consistent with Indicator 2.

**Summary:** The proposed CAAP includes a roadmap for implementing new policies, programs, incentives, requirements, projects, and initiatives designed to reduce GHG emissions and adapt to climate change impacts. The GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that while the LUE was consistent with the AQMP's policies aimed at reducing air emissions and would not increase population or employment in the City, the project would result in additional housing units that would generate VOC and CO emissions above established SCAQMD thresholds. As the proposed CAAP would not alter the development assumptions of the adopted LUE, the proposed project would not alter the significant and unavoidable impact identified in the 2019 Certified Program EIR. However, the proposed CAAP would not conflict with or obstruct the implementation of the air quality plans prepared by SCAQMD to attain State and national air quality standards, or violate any air quality standard. In addition, several CAAP Actions and measures to support CAAP Actions, and the Adaptation Actions related to air quality would help minimize air pollutant emissions and their impacts in the planning area. As such, the proposed CAAP would result in a less than significant impact related to a conflict or obstruction of implementation of applicable air quality plans. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would conflict or obstruct implementation of applicable air quality plans. Therefore, the Safety Element Update would have no impact related to a conflict or obstruction of implementation of applicable air quality plans, and no mitigation is required.

**Threshold 4.2.2:** **Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard?**

**CAAP: Less Than Significant Impact.** The proposed CAAP is a programmatic document that identifies CAAP Actions and Adaptation Actions that could be proposed as future discretionary projects or

ministerial actions to meet the City's GHG reduction target. The CAAP Checklist may also be used by future discretionary projects seeking to demonstrate consistency with the CAAP in-lieu of a project-specific GHG analysis. The proposed CAAP itself is a policy document and does not propose any specific future projects. As a result, no emissions calculations can be performed for the types of future projects and improvements that could be facilitated by adoption of the proposed CAAP. This analysis assumes that the California Emissions Estimator Model (CalEEMod), or a successor model that is approved for use for CEQA air quality analyses by the SCAQMD, would be used to calculate construction and operational emissions for any such future project's independent, project-level CEQA analysis.

Pursuant to *State CEQA Guidelines* Section 15064.7, a lead agency may consider using significance criteria established by the applicable air quality management district or air pollution control district when making determinations of significance. The CAAP, if approved, would be implemented within the boundaries of the SCAQMD. SCAQMD has established air quality significance thresholds in its *CEQA Air Quality Handbook*. These thresholds are based on the recognition that the Basin is a distinct geographic area with critical air pollution problems for which ambient air quality standards have been promulgated to protect public health.<sup>17</sup> Potential programmatic air quality impacts analyzed in this Draft SEIR are evaluated according to the most recent thresholds adopted by the SCAQMD in connection with its *CEQA Air Quality Handbook*, *Air Quality Analysis Guidance Handbook*, and subsequent SCAQMD guidance.<sup>18</sup>

As described above, the Basin is currently designated nonattainment for the federal and State standards for O<sub>3</sub> and PM<sub>2.5</sub>. In addition, the Basin is in nonattainment for the PM<sub>10</sub> standard. The Basin's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis.

In developing thresholds of significance for air pollutants, the SCAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. Specific project-level construction and operational activities that may occur with implementation of the CAAP are unknown at this time. Future discretionary projects that utilize the CAAP Checklist for GHG streamlining would be reviewed on a project-by-project basis, and mitigation would be identified during project-level review as appropriate. The following analysis assesses the potential program-level air quality impacts associated with implementation of CAAP Actions, Tier 1 and Tier 2 measures

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<sup>17</sup> SCAQMD, 1993. *CEQA Air Quality Handbook (1993)*. Website: [http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)) (accessed January 2022).

<sup>18</sup> While the SCAQMD *CEQA Air Quality Handbook* contains significance thresholds for lead, projects undertaken in furtherance of the proposed CAAP would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial and residential land use projects. As a result, lead emissions are not further evaluated.

to support the CAAP Actions, and Adaptation Actions that may be implemented as or with future discretionary projects. Implementation of the proposed project may also include improvements that are not subject to discretionary action or CEQA review; however, future actions not subject to CEQA review are not considered in this programmatic CEQA document.

**Construction.** Since precise descriptions and locations of activities involving construction approved for site-specific projects facilitated by the proposed CAAP are not known at this time, it is not possible to quantify construction emissions. Thus, construction air quality impacts described in this analysis are qualitatively based on the possibility for projects facilitated by implementation of CAAP to involve construction activities, reasonably resulting in construction emissions.

During construction activities of any future discretionary projects that would implement the proposed CAAP, short-term degradation of air quality may occur due to the release of particulate emissions generated by grading, paving, building, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO<sub>x</sub>, VOCs, directly-emitted particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), and TACs such as diesel exhaust particulate matter.

While details for construction of future projects that may implement CAAP Actions, measures to support CAAP Actions or Adaptation Actions cannot be known at this time, construction activities related to the required (Tier 1) and encouraged (Tier 2) measures on the CAAP Checklist are described below. However, use of the CAAP Checklist only provides CEQA streamlining for a project-level GHG analysis, and a project-level air quality analysis is still required for all future discretionary projects. Tier 1 measures are required because either they were quantified as part of the City's GHG reduction pathway, or because they are mandatory under the regulatory environment (i.e., compliance with building energy codes) and help demonstrate CAAP consistency. Tier 1 measures or equivalent strategies would also be required for other improvements to existing development to demonstrate consistency with the goals and policies of the CAAP.

Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency for municipal projects, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. Tier 2 measures encouraged for the Building and Energy sector include building energy efficiency upgrades. Implementation of these measures would support the CAAP Actions for Building and Energy by requiring increased access and incentives for clean energy (BE-1) and the increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures. Installation of renewable energy infrastructure such as rooftop solar and electric vehicle charging stations would involve minor construction activities, but are not expected to result in substantial construction emissions. Other Building and Energy CAAP Actions would increase energy efficiency of existing facilities (BE-4 and BE-5), electrify new residential and commercial buildings (BE-7), and reduce energy use and increase renewable electricity supply for municipal projects (BE-6). Energy efficiency improvements such as energy management programs, appliance retrofits, and zero-net-energy construction are anticipated to involve only minor construction activities and are not expected to result in substantial construction-related air quality pollutant emissions. There is also a CAAP Action for the City to take actions to reduce emissions from local oil and gas extraction (BE-8). CAAP Actions such as the reduction of emissions related to oil and gas extraction (BE-8), such as through regulatory restrictions or additional monitoring, are not included on the CAAP Checklist for future discretionary projects. Any

actions taken by the City in support of BE-8 are not anticipated to result in construction or operational air quality emissions, but any future project to implement such actions would be subject to project-level CEQA review.

Tier 1 measures for the Transportation sector include trip reduction features to reduce VMT; incorporating pedestrian, bicycle, and electric vehicle charging infrastructure; and complying with the City's TDM Ordinance and TIA Guidelines. Tier 2 measures for the Transportation Sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service, providing bicycle, pedestrian, and electric vehicle infrastructure (T-1, T-3, and T-5), complying with the City's TDM requirements (T-7), and complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to SB 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increase density and mixing of land uses (T-6 and T-8). Other Tier 2 measures that support the CAAP Actions for Transportation listed on the CAAP Checklist are designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establishing bus-only lanes, and expanding electric-vehicle charging infrastructure to further reduce emissions. Similar to the Building and Energy CAAP Actions, future projects to support Transportation Actions that include new development would result in construction-related emissions but would be evaluated at the project-level, with mitigation identified during project-level review as appropriate.

Tier 1 measures required for the Waste sector include the recycling of appropriate materials and organics composting. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion. Implementation of the Tier 1 measures would support CAAP Actions for Waste by requiring recycling (W-1) and organic waste collection and processing (W-2, W-3). Any new construction required to facilitate such actions would be subject to project-level CEQA review. Other CAAP Actions for Waste supported by the measures listed on the CAAP Checklist would expand community-wide participation in organic waste collection and diversion.

Construction activities associated with future discretionary projects implementing CAAP Actions, Adaptation Actions, or that include measures to support the CAAP Actions utilizing the CAAP Checklist, could result in construction emissions that could increase pollutant concentrations and contribute to existing air pollution in the Basin. Specific project-level construction project data that may occur with implementation of the measures to support CAAP Actions are unknown at this time. Future projects would be subject to project-level CEQA review to determine if substantial dust-generating construction activities would occur. Project-level mitigation would be required as applicable.

In addition, all future projects that implement the CAAP would be reviewed for consistency with the adopted LUE. The goals and policies of the adopted LUE are intended to minimize impacts associated with nonattainment criteria pollutants. In addition, a list of potential Best Management Practices (BMPs) and compliance measures are outlined in Compliance Measure (CM) AQ-1 from the 2019 Certified Program EIR. Compliance with these measures will ensure that the intended environmental protections are achieved. These BMP measures are identified for future project

developments that may be implemented under the adopted LUE project and the proposed CAAP that would require environmental evaluation under CEQA. Additionally, Mitigation Measure (MM) AQ-1 of the 2019 Certified Program EIR requires the preparation of project-specific technical assessments evaluating construction-related air quality impacts to further ensure that construction-related emissions are reduced to the maximum extent feasible for projects that require environmental evaluation under CEQA. MM AQ-1 of the 2019 Certified Program EIR is a project-level mitigation measure and therefore does not apply to the proposed project but would apply to future projects that implement the CAAP.

As the CAAP does not alter the land use designations or development assumptions of the LUE, the proposed project does not alter the significant and unavoidable impact identified in the 2019 Certified Program EIR. However, the proposed project as a program to reduce the City's GHG emissions would result in a less than significant impact related to a cumulatively considerable net increase of any criteria pollutant.

**Operation.** SCAQMD provides daily regional significance thresholds for criteria air pollutant emissions, for which individual project operations are calculated and compared against to determine if a project-level or cumulatively considerable impact would occur. Since precise descriptions and locations of activities involving operation approved for site-specific projects facilitated by the proposed CAAP are not known at this time, it is not possible to quantify operational emissions.<sup>19</sup> Thus, operational air quality impacts are qualitatively described for potential future projects facilitated by the CAAP related to the SCAQMD significance thresholds for operational emissions.

Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) that would result from future projects that would implement the proposed CAAP Actions, Adaptation Actions or measures to support CAAP Actions through use of the CAAP Checklist.

As described above, Tier 1 measures to support the CAAP Actions related to Building and Energy are designed to ensure that future discretionary projects reduce GHG emissions, such as through increased use of zero-carbon electricity and/or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Through the reduction of energy consumption and efficiency retrofits, air pollutant emissions generated by buildings and facilities would also be reduced. Other Tier 1 measures would support Building and Energy CAAP Actions by requiring energy efficient improvements and increased use of solar power and clean energy sources which would be constructed on existing or proposed buildings (e.g., new rooftop solar or retrofits). In

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<sup>19</sup> Section 4.4, *Greenhouse Gas Emissions*, also does not provide GHG emissions quantification of any specific projects that may be facilitated by the proposed CAAP. The GHG analysis includes a baseline GHG inventory, and 2030, 2040, and 2050 emissions projections based on growth in population, housing, and employment that are expected for the City through the year 2050. However, unlike GHG emissions, which generate exclusively cumulative impacts, air quality significance thresholds are based on individual project-level emissions. Information is not available to quantify individual project-level air pollutant emissions and such quantification would be speculative at this time.

addition, operation of the proposed measures to support the CAAP Actions for Building and Energy would ensure that future development implement sustainable energy measures and strategies that would reduce air pollutant emissions from energy sources that are not expected to result in long-term emissions that would exceed SCAQMD's daily operational thresholds for criteria pollutants.

Furthermore, CAAP Actions and the measures to support the CAAP Actions would help to reduce adverse air quality effects through the reduction of fossil fuel consumption and use of private motor vehicles. Measures to reduce VMT would reduce automobile-generated air pollutants throughout the City. Similar to the adopted LUE, the proposed CAAP would not generate volumes of traffic required to generate a CO hot spot.

CAAP Actions and measures to support these actions related to Waste may result in new facilities for organic waste processing that would result in operational emissions. However, operational emissions that may result from future projects that would support organic waste collections and processing would reduce operational emissions currently occurring at landfills and other waste processing facilities. In addition, such new facilities would be subject to their own project-level CEQA review.

As described above, the CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. The Adaptation Actions provide general strategies that may be needed to lessen climate change impacts based on the CAAP Vulnerability Assessment. While incorporation of Adaptation Actions strategies would not be required to meet the City's GHG emission reduction targets, specific adaptation requirements are listed in the CAAP Checklist for future discretionary projects to implement as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessening the impacts of climate change on critical infrastructure and public facilities. The CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact. There is not sufficient information at this time to analyze potential future physical improvements that may be needed to implement the proposed framework of Adaptation Actions in the CAAP because there is not enough information to evaluate specific projects at their particular locations. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future improvements would be analyzed on a project level pursuant to CEQA. A project-level evaluation would be required to determine if daily emissions would exceed SCAQMD's significance thresholds for any criteria air pollutant and project-specific mitigation measures would be required as applicable. Furthermore, there are seven Adaptation Actions specifically related to air quality to reduce air pollution and its impacts from a variety of sources such as buses, landscaping equipment, the Long Beach Airport, and food transportation. Therefore, while project-level emissions cannot be known, the CAAP's potential operational impacts of the Adaptation Actions at a program level to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard would be less than significant, and no mitigation would be required.

All future discretionary projects that implement CAAP Actions or utilize the CAAP Checklist for GHG streamlining would implement measures to support the CAAP Actions to achieve the City's GHG

emissions targets, which would also serve to reduce air quality emissions. Therefore, the potential program-level operational impacts of the CAAP to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard would be less than significant, and no mitigation would be required. In addition, the proposed CAAP does not alter the land use designations or development assumptions of the adopted LUE. Therefore, the proposed project does not alter the conclusion of the 2019 Certified Program EIR, and impacts of the adopted LUE would remain significant and unavoidable. Mitigation Measure MM AQ-2 from the 2019 Certified Program EIR requires the preparation of project-specific technical assessments evaluating operational-related air quality impacts to further ensure that operational-related emissions are reduced to the maximum extent feasible for projects that require environmental evaluation under CEQA. MM AQ-2 would apply to all future projects that implement the CAAP but would not apply to the proposed project as a program-level document.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard. Therefore, the Safety Element Update would have no impact on criteria pollutants, and no mitigation is required.

**Threshold 4.2.3: Would the project expose sensitive receptors to substantial pollutant concentrations?**

**CAAP: Less Than Significant Impact.** As discussed previously, the proposed project is a policy/planning action and approval of the CAAP at a programmatic level does not constitute approval of physical development necessary to implement CAAP Actions that would require project-level CEQA review, nor would it grant any entitlements for development that would result in the exposure of sensitive receptors to substantial pollutant concentrations. As described above, the proposed project includes CAAP Actions for Building and Energy efficiency, Transportation vehicle trip reductions, and Waste organics and recycling processing. The CAAP Checklist includes required Tier 1 measures to support the CAAP Actions related to Building and Energy designed to ensure that future discretionary projects reduce energy-related GHG emissions, such as through increased use of zero-carbon electricity and/or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Other Tier 1 measures would support Building and Energy CAAP Actions by requiring energy efficiency improvements and the increased use of solar power and zero-carbon electricity sources. The CAAP Checklist also includes Tier 1 and Tier 2 measures to support Transportation CAAP Actions including expansion of the bicycle and pedestrian network and other measures to reduce VMT, and increased housing and employment along major transit corridors and increased density and mixing of land uses. Measures to support CAAP Actions for Waste include encouraging recycling compliance and expanded organic waste collection.

The SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors such as residential land uses in the immediate vicinity of the project site as a result of construction

activities. The thresholds are based on standards established by the SCAQMD in its Localized Significance Thresholds (LST) Methodology<sup>20</sup> and are measured against construction emissions that occur on a specific project site. These emissions are primarily generated from heavy-duty construction equipment and demolition, grading, and trenching activities. However, the LSTs are applicable to projects at the project-specific level and are not applicable to programmatic documents, such as the proposed CAAP.

Implementation the CAAP Actions and Adaptation Actions may involve new or remodeled construction which could result in short-term construction emissions. The measures to support the CAAP Actions and Adaptation Actions may be included in future discretionary projects that may develop larger renewable energy facilities, construct new transit, pedestrian, and bikeway facilities, construct increased residential, commercial, and mixed-use development, develop larger waste facilities, elevate infrastructure, and create sand dunes. Localized construction impacts of future projects could potentially exceed the LSTs. However, as discussed above, all future discretionary projects would be reviewed in accordance with CEQA and would require further evaluation at the project level to demonstrate whether emissions would exceed SCAQMD's LSTs and require project-specific mitigation. In addition, regulatory measures (e.g., SCAQMD Rule 201 for a permit to operate, Rule 403 for fugitive dust control, Rule 1113 for architectural coatings, Rule 1403 for new source review, and CARB's Airborne Toxic Control Measures) are currently in place, and mitigation would be imposed at the project level, once such future projects are proposed. In addition, while the CAAP Actions and measures to support the CAAP Actions would promote increased housing and employment along major transit corridors and increased density and mixing of land uses, consistent with the goals of the adopted LUE, these actions would not result in the development of land uses that would expose sensitive receptors to substantial pollutant concentrations beyond those which were anticipated in the adopted LUE. Therefore, the proposed CAAP would not alter the significant and unavoidable impact identified in the 2019 Certified Program EIR. MM AQ-3 of the 2019 Certified Program EIR would ensure that mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review and would ensure that the potential TAC health risk impact associated with the development anticipated in the General Plan buildout would be less than significant. Future projects to implement CAAP Actions, Adaptation Actions, and that utilize the CAAP Checklist would be subject to MM AQ-3. However, as MM AQ-3 is a project-level requirement, this mitigation measure does not apply to the proposed project as a program-level document.

Once implemented, the proposed CAAP would support energy conservation and renewable energy, encourage alternative transportation, and encourage recycling compliance and expanded organic waste collection. These measures would help to reduce adverse air quality effects through the reduction of fossil fuel consumption and use of private motor vehicles. In addition, measures to support the CAAP Actions related to Transportation would reduce VMT, and thus automobile-generated air pollutants, throughout the City. A reduction of annual VMT would result in a benefit to regional air quality. Adaptation Actions related to air quality would also result in a beneficial impact to regional air quality for sensitive receptors within the planning area.

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<sup>20</sup> SCAQMD. 2021. Localized Significance Thresholds. Website: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds> (accessed November 2021).

Therefore, the proposed CAAP as a program to reduce GHG emissions citywide, which includes actions to improve air quality and reduce air pollutant emissions, would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would expose sensitive receptors to substantial pollutant concentrations. Therefore, the Safety Element Update would have no impact on substantial pollutant concentrations, and no mitigation is required.

**Threshold 4.2.4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**CAAP: Less Than Significant Impact.** Although the proposed CAAP does not include any physical development, future projects that implement the CAAP Actions or Adaptation Actions or utilize the Checklist and incorporate measures to support the CAAP Actions, could generate new sources of odors. Nuisance odors from land uses in the Basin are regulated under SCAQMD Rule 402, Nuisance, which states:

*A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.*

Industrial land uses have the potential to generate objectionable odors. Examples of odor-generating industrial projects are wastewater treatment plants, compost facilities, landfills, solid-waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. Residential and commercial land uses could result in the generation of odors such as exhaust from landscaping equipment. However, unlike industrial land uses, these are not considered potential generators of odor that could affect a substantial number of people.

In general, future projects to implement the CAAP would not create new sources of substantial permanent odors. During construction activities associated with future discretionary projects, construction equipment exhaust and application of asphalt and architectural coatings could temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment and would be unlikely to affect a substantial number of people. In addition, by the time such emissions reached any sensitive receptor sites, they would be diluted to well below

any level of air quality concern. However, all future discretionary projects would be subject to project-level CEQA review to determine if impacts related to odors would occur and if project-specific mitigation is required. Therefore, for these reasons and because the proposed CAAP does not include any physical development, impacts associated with construction-generated odors are considered less than significant.

CAAP Actions encourage increased residential, commercial, and mixed-use development consistent with the City's adopted PlaceTypes and regulations in the adopted LUE. While odor sources are present within the City, the odor policies enforced by the SCAQMD, including Rule 402, and City of Long Beach Municipal Code Section 8.64.040, prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. Development of future residential, commercial, and mixed-use development that implements CAAP Actions or incorporates measures to support the CAAP Actions would have the potential to result in nuisance odors that would be required to comply with these regulations.

CAAP Actions also encourage the development of larger waste facilities. However, future discretionary projects for new or expanded solid waste facilities would be required to undergo project-level CEQA review, disclose any potential impacts related to creating objectionable odors, and provide mitigation of any significant impacts, if necessary. Any other future discretionary projects implemented by the City, other agencies, or private developers that would help achieve the goals of the CAAP would also be subject both to project-specific CEQA review and the City's Municipal Code requirements. Since the proposed CAAP does not include any specific proposed facilities or identify facility locations, no further analysis of this potential impact can be provided at this time. Therefore, impacts associated with other emissions (such as those leading to odors) adversely affecting a substantial number of people would be less than significant. No mitigation is required.

The proposed CAAP also identifies Adaptation Actions, which provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change in particular locations throughout the City. While incorporation of Adaptation Actions are not required for future development in the same way that CAAP Actions are, they are included on the CAAP Checklist, and may be applicable to future discretionary projects. These policies are intended to improve the ability of Long Beach and its residents and businesses to adapt to climate change and related impacts now and in the future and include air quality actions that include incentives for photocatalytic tiles, encouragement of urban agriculture practices, development of the Long Beach Airport Sustainability Plan, electrification of small local emitters, school bus electrification, and increasing monitoring and regulation of oil extraction and refinement. These Adaptation Actions are expected to reduce air pollutant emissions in the City, which would result in a beneficial impact. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in other emissions (such

as those leading to odors) adversely affecting a substantial number of people. Therefore, the Safety Element Update would have no impact on criteria pollutants, and no mitigation is required.

#### **4.2.6 Level of Significance Prior to Mitigation**

The proposed project would result in less than significant impacts related to air quality, and no mitigation is required.

#### **4.2.7 Regulatory Compliance Measures and Mitigation Measures**

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action, does not include any project design features related to air quality.

#### **4.2.8 Level of Significance after Mitigation**

No mitigation measures related to air quality are required for the proposed project.

#### **4.2.9 Cumulative Impacts**

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probably future projects within the cumulative impact area for air quality. The cumulative study area analyzed for potential air quality impacts is the South Coast Air Basin. Each project in the Basin is required to comply with SCAQMD rules and regulations and is subject to independent review. For purposes of the cumulative air quality analysis with respect to *State CEQA Guidelines* Section 15064(h)(3), the proposed CAAP's contribution to cumulative air quality impacts is determined based on compliance with the SCAQMD's adoption of the AQMP. As discussed above in the context of Threshold 4.2.1 above, the proposed CAAP as a programmatic document does not conflict with or obstruct implementation of AQMP.

SCAQMD recommends that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality because projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003). However, as the proposed project is a programmatic document, a project-level analysis for either project-specific impacts or cumulative impacts does not apply.

Cumulative growth within the City could increase pollutant concentrations and contribute to existing air pollution in the Basin. As described in the 2019 Certified Program EIR, implementation of the adopted LUE could contribute to an increase in frequency or severity of air quality violations and delay attainment of the AAQS or interim emission reductions in the AQMP due to the increase in VMT associated with implementation of the project. Therefore, emissions generated from the adopted LUE project were determined to result in a significant cumulative air quality impact. The proposed project does not include physical improvements or development; however, the GHG reduction targets of the CAAP that were used to inform the proposed CAAP Actions, Adaptation Actions, and CAAP Checklist, were developed based on the development and growth anticipated by

the adopted LUE. Implementation of the CAAP assumes that future discretionary projects would implement CAAP Actions and measures to support the CAAP Actions to achieve the City's GHG emissions targets, but would also include the construction of new facilities or retrofits to existing buildings, new transit and waste facilities, and changes to the existing streetscape. Although locations and sizes of these future discretionary projects are unknown, if the construction of a nearby project occurs at the same time as the construction of a project that implements the CAAP, cumulative construction air quality impacts could occur. Where there is the potential for these cumulative impacts, they would be addressed through project-level environmental review and permitting, and mitigated at the project level if necessary. Construction activities and operational emissions associated with future discretionary projects that implement the CAAP would be subject to CEQA and ensure consistency with local, State, and federal air quality standards that are intended to protect air quality. In addition, future development facilitated by the proposed CAAP would be required to comply with CARB motor vehicle standards, SCAQMD regulations from stationary sources and architectural coatings, and Title 24 energy efficiency standards. Future discretionary development would also require compliance with the project-level mitigation measures MM-AQ-1, MM AQ-2, and MM-AQ-3 identified in the 2019 Certified Program EIR. As such, the CAAP as a program-level document would not cumulatively contribute to air quality impacts and includes goals and policies that seek to improve air quality in the planning area. No mitigation is required.

The proposed project also includes text changes to the Safety Element to incorporate recognition of climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant impacts. Therefore, the Safety Element Update would not cumulatively contribute to air quality impacts. No mitigation is required.

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## 4.3 ENERGY

This section discusses energy use resulting from implementation of the Climate Action and Adaptation Plan (CAAP) and Safety Element Update Project (proposed project) and evaluates whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency. The analysis contained in this section is based on the Draft *Climate Action and Adaptation Plan* (Appendix B), the Draft *Safety Element* (Appendix C), and the *Climate Action and Adaption Plan Consistency Review Checklist (CAAP Checklist): Technical Support Documentation* (ESA 2021) (Appendix D). As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element Update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Therefore, the analysis in this Subsequent Environmental Impact Report (SEIR) focuses on the potential impacts from the measures included in the CAAP Consistency Review Checklist (CAAP Checklist) required for future discretionary projects, as well as the potential programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.3.1 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this SEIR. No comment letters included comments related to energy.

### 4.3.2 Existing Environmental Setting

#### 4.3.2.1 Existing Planning Area

The CAAP and Safety Element Update addresses all land within the City's jurisdictional limits. Throughout this Draft SEIR, these areas are referred to as the "planning area."

The planning area encompasses approximately 50 square miles within the limits of the City of Long Beach (excluding the City of Signal Hill, which is completely surrounded by the City of Long Beach) in the southern region of Los Angeles County. The planning area is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton, Paramount, and Bellflower; and on the east by the Cities of Lakewood, Hawaiian Gardens, Cypress, Los Alamitos, and Seal Beach. Additionally, the City of Signal Hill is centrally located within the planning area and is completely surrounded by development in the City of Long Beach.

The planning area is currently developed and consists of a mix of residential, commercial, medical, institutional, industrial, and open space and recreation uses. These uses currently generate energy usage associated with natural gas and electricity use and gasoline and diesel fuel associated with vehicle, bus, and truck trips.

#### 4.3.2.2 Electricity

In February 2021, California consumed an average of over 12,205 thousand megawatt-hours (MWh) of electricity. Natural gas is the main source of electricity in the State (approximately 49.4 percent) followed by non-hydroelectric renewables<sup>1</sup> (27.3 percent), hydroelectric facilities (6.3 percent), nuclear facilities (6.5 percent), and coal-fired facilities (less than 1 percent).<sup>2</sup>

The City of Long Beach receives its electricity from Southern California Edison (SCE). SCE, an independently owned utility, provides electrical service to 15 million people in 50,000 square miles across central, coastal, and southern California, including the City of Long Beach. SCE delivers electrical power to its service area through 12,635 miles of transmission lines, 91,375 miles of distribution lines, 1,433,336 electric poles, 720,800 distribution transformers, and 2,959 substation transformers.<sup>3</sup>

In 2020, SCE's primary source of energy was natural gas (48.35 percent of California in-state generation). The second main source of SCE's energy was from non-hydroelectric renewable resources (33.35 percent). Other SCE energy sources include large hydroelectric (9.40 percent), nuclear (8.53 percent), coal (0.17 percent), and oil (0.02 percent).<sup>4</sup> SCE generates a portion of the energy to provide to its own facilities.

In February 2018, the California Energy Commission (CEC) published preliminary California Energy Demands for 2018 through 2030 within the SCE Planning Area.<sup>5</sup> According to the CEC, the electricity consumption in the SCE service area for 2018 was 110,349 gigawatt-hours (GWh) in the high-demand scenario. Forecasted electricity consumption within the SCE service area is estimated to be 125,112 GWh by 2025 and 133,754 GWh by 2030 (the furthest horizon year for which data are available). In addition, the CEC estimates that net peak demand and net energy load within SCE's service territory will continue to grow annually by 2.45 percent until 2030.

#### 4.3.2.3 Natural Gas

As of 2020, California produced less than 1 percent of the total United States supply of natural gas.<sup>6</sup> Natural gas production includes onshore facilities located across the State, as well as offshore in the Pacific Ocean. In the State of California, electricity generation is the largest user of natural gas (nearly 45 percent), followed by industrial uses (25 percent), residential uses (e.g., space and water heating) (21 percent), and commercial uses (9 percent). Due to the decline in natural gas production

<sup>1</sup> "Nonhydroelectric renewables" refer to energy sources such as wind, solar, biomass, and geothermal.

<sup>2</sup> U.S. Department of Energy, EIA. California. Website: <https://www.eia.gov/state/?sid=CA#tabs-4>, (accessed August 2021).

<sup>3</sup> Southern California Edison (SCE). Powering Southern California for 130+ Years, Website: <https://www.sce.com/about-us/—who-we-are> (accessed August 2021).

<sup>4</sup> SCE. 2020 Total System Electric Generation. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation> (accessed November 2021).

<sup>5</sup> California Energy Commission (CEC). 2018–2028 Electricity Demand Preliminary Forecast. CEC-200-2017-006-SD. Published August 9, 2017 (accessed August 2021).

<sup>6</sup> U.S. Department of Energy, EIA. 2020. California State Profile and Energy Estimates. Rankings: Natural Gas Marked Production. Website: [https://www.eia.gov/dnav/ng/ng\\_prod\\_sum\\_a\\_EPG0\\_VGM\\_mmc\\_f\\_a.htm](https://www.eia.gov/dnav/ng/ng_prod_sum_a_EPG0_VGM_mmc_f_a.htm) (accessed November 2021).

in California, the State depends on out-of-state imports for over 90 percent of its natural gas supply.<sup>7</sup>

The City of Long Beach Municipal Energy Resources (ER) Department purchases natural gas from Southern California Gas Company (SoCalGas) and provides natural gas services to residents and businesses of Long Beach and Signal Hill and portions of surrounding communities, including the cities of Bellflower, Compton, Lakewood, Los Alamitos, Paramount, and Seal Beach. Currently, the ER Department is the fifth largest municipal gas utility in the nation, serving approximately 500,000 residents<sup>8</sup> and businesses through over 1,900 miles of ER pipelines.<sup>9</sup> The ER Department's customer profile is 53 percent residential and 47 percent commercial/industrial.

The ER Department receives a small portion (approximately 5 percent) of its natural gas supply directly into its pipeline system from local production fields in the planning areas, as well as offshore facilities. The remainder of ER's natural gas supplies is purchased from the southwestern United States. The ER Department also receives intrastate transmission service for purchased gas from SoCalGas.

In 2018, the California Gas and Electric Utilities<sup>10</sup> published the 2018 California Gas Report. In addition to providing a summary of the existing and historic natural gas demands, the 2018 California Gas Report provides projected annual gas supplies for future years through year 2035. According to the 2018 California Gas Report, the natural gas demand in the ER Department's service area was estimated to be 8.65 billion cubic feet (bcf) per year in 2018 with a future annual demand projected to reach 9.02 bcf per year in 2035 (the furthest horizon year for which data are available).<sup>11</sup>

#### 4.3.2.4 Petroleum/Transportation Energy

Petroleum is also a non-renewable fossil fuel. Petroleum is a thick, flammable, yellow-to-black mixture of gaseous, liquid, and solid hydrocarbons that occurs naturally beneath the earth's surface. Petroleum is primarily recovered by oil drilling. It is refined into a large number of consumer products, primarily fuel oil, gasoline, and diesel.

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<sup>7</sup> CEC. Supply and Demand of Natural Gas in California. Website: <https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california> (accessed August 2021). Note: The full set of estimates for the 2020 data cycle will be released on June 24, 2022.

<sup>8</sup> Long Beach Energy Resources Department. Website: <http://www.longbeach.gov/energyresources/> (accessed August 2021).

<sup>9</sup> California Gas and Electric Utilities. 2018 California Gas Report. Website: [https://www.socalgas.com/regulatory/documents/cgr/2018\\_California\\_Gas\\_Report.pdf](https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf) (accessed August 2021).

<sup>10</sup> Consists of the following: Southern California Gas Company, Pacific Gas & Electric Company, San Diego Gas & Electric Company, Southwest Gas Corporation, City of Long Beach Energy Resources Department, Sacramento Municipal Utilities District, and Southern California Edison Company.

<sup>11</sup> California Gas and Electric Utilities. 2018, op cit.

The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 miles per gallon (mpg) in 1980 to 22.2 mpg in 2019.<sup>12</sup> Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. The Act, which originally mandated a national fuel economy standard of 35 mpg by year 2020<sup>13</sup>, applies to cars and light trucks of Model Years 2011 through 2020. In March 2020, the United States Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration (NHTSA) finalized the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, further detailed below.

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. According to the most recent data available, total gasoline consumption in California was 365,610 thousand barrels or 1,847.8 trillion British Thermal Units (BTU) in 2018.<sup>14</sup> Of the total gasoline consumption, 349,108 thousand barrels or 1,764.4 trillion BTU were consumed for transportation.<sup>15</sup> Based on fuel consumption obtained from EMFAC2020, approximately 507 million gallons of diesel and approximately 3.8 billion gallons of gasoline will be consumed from vehicle trips in Los Angeles County in 2021.

### 4.3.3 Regulatory Framework

Federal and State agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (USEPA) are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. On the State level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy.

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies and serves the public interest by protecting consumers and ensuring the provision of safe, reliable utility service and infrastructure at reasonable rates, with a commitment to environmental enhancement and a healthy California economy.

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<sup>12</sup> U.S. Department of Transportation (DOT). “Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles.” Website: <https://www.bts.dot.gov/bts/bts/content/average-fuel-efficiency-us-light-duty-vehicles> (accessed July 19, 2021).

<sup>13</sup> U.S. Department of Energy. 2007. “Energy Independence & Security Act of 2007.” Website: <https://www.afdc.energy.gov/laws/eisa> (accessed July 19, 2021).

<sup>14</sup> A British Thermal Unit is defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

<sup>15</sup> U.S. Department of Energy, EIA. 2020. California State Profile and Energy Estimates. Table F3: Motor gasoline consumption, price, and expenditure estimates, 2018. Website: [eia.gov/state/seds/data.php?incfile=/state/seds/sep\\_fuel/html/fuel\\_mg.html&sid=CA](http://eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA) (accessed August 2021).

The CEC is the State's primary energy policy and planning agency. The CEC forecasts future energy needs, promotes energy efficiency, supports energy research, develops renewable energy resources, and plans for/directs state response to energy emergencies. The applicable federal, State, regional, and local regulatory framework is discussed below.

#### 4.3.3.1 Federal Regulations

**Energy Policy Act of 2005.** The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under this Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products (including hybrid vehicles), building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

**Safer Affordable Fuel-Efficient Vehicles Rule.** On March 21, 2020, the USEPA and National Highway Traffic Safety Administration (NHTSA) finalized the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). The SAFE Vehicles Rule amends certain existing Corporate Average Fuel Economy and tailpipe CO<sub>2</sub> emissions standards for passenger cars and light trucks and establishes new standards, all covering model years 2021 through 2026. More specifically, the NHTSA set new Corporate Average Fuel Economy standards for model years 2022 through 2026 and amended its 2021 model year Corporate Average Fuel Economy standards, and the USEPA amended its CO<sub>2</sub> emissions standards for model years 2021 and later.

#### 4.3.3.2 State Regulations

**Assembly Bill 1575, Warren-Alquist Act.** In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575 (also known as the Warren-Alquist Act), which created the CEC. The statutory mission of the CEC is to forecast future energy needs; license power plants of 50 megawatts (MW) or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code (PRC) Section 21100(b)(3) and *State CEQA Guidelines* Section 15126.4 to require EIRs to include, where relevant, mitigation measures proposed to minimize the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F to the *State CEQA Guidelines*. Appendix F assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the *State CEQA Guidelines* also states that the goal of conserving energy implies the wise and efficient use of energy and the means of achieving this goal, including (1) decreasing overall per capita energy consumption; (2) decreasing reliance on fossil fuels such as coal, natural gas, and oil; and (3) increasing reliance on renewable energy sources.

**Senate Bill 1389, Energy: Planning and Forecasting.** In 2002, the State Legislature passed Senate Bill (SB) 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the

State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles (ZEVs) and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

In compliance with the requirements of SB 1389, the CEC adopts an *Integrated Energy Policy Report* every 2 years and an update every other year. CEC approved the *2020 Integrated Energy Policy Report* in March 2021.<sup>16</sup> The *2020 Integrated Energy Policy Report* covers a broad range of topics, including decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast.

**Renewable Portfolio Standard.** SB 1078 established the California Renewable Portfolio Standards program in 2002. SB 1078 initially required that 20 percent of electricity retail sales be served by renewable resources by 2017; however, this standard has become more stringent over time. In 2006, SB 107 accelerated the standard by requiring that the 20 percent mandate be met by 2010. In April 2011, SB 2 required that 33 percent of electricity retail sales be served by renewable resources by 2020. In 2015, SB 350 established tiered increases to the Renewable Portfolio Standards of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. In 2018, SB 100 increased the requirement to 60 percent by 2030 and required that all the State's electricity come from carbon-free resources by 2045. SB 100 took effect on January 1, 2019.<sup>17</sup>

**Title 24, California Building Code.** Energy consumption by new buildings in California is regulated by the Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR), known as the California Building Code (CBC). The CEC first adopted the Building Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. The CBC is updated every 3 years, and the current 2019 CBC went into effect on January 1, 2020. The efficiency standards apply to both new construction and rehabilitation of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in CCR Title 24.

**California Green Building Standards Code (CALGreen Code).** In 2010, the California Building Standards Commission (CBSC) adopted Part 11 of the Title 24 Building Energy Efficiency Standards, referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code took effect on January 1, 2011. The CALGreen Code is updated on a regular basis, with the most recent update consisting of the 2019 CALGreen Code standards that became effective January 1,

<sup>16</sup> CEC. 2020. *2020 Integrated Energy Policy Report*. Docket No. 20-IEPR-01.

<sup>17</sup> California Public Utilities Commission (CPUC). 2019. Renewables Portfolio Standard Program. Website: [cpuc.ca.gov/rps](http://cpuc.ca.gov/rps) (accessed August 2021).

2020. The CALGreen Code established mandatory measures for residential and non-residential building construction and encouraged sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce greenhouse gas (GHG) emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and non-residential buildings subject to the standard.

**California Energy Efficiency Strategic Plan.** On September 18, 2008, the CPUC adopted California's first Long-Term Energy Efficiency Strategic Plan, presenting a roadmap for energy efficiency in California.<sup>18</sup> The Plan articulates a long-term vision and goals for each economic sector and identifies specific near-term, mid-term, and long-term strategies to assist in achieving those goals. The Plan also reiterates the following four specific programmatic goals known as the "Big Bold Energy Efficiency Strategies" that were established by the CPUC in Decisions D.07-10-032 and D.07-12-051:

- All new residential construction will be zero net energy (ZNE) by 2020.
- All new commercial construction will be ZNE by 2030.
- 50 percent of commercial buildings will be retrofit to ZNE by 2030.
- 50 percent of new major renovations of State buildings will be ZNE by 2025.

#### 4.3.3.3 Regional Regulations

**Assembly Bill 811, Contractual Assessments: Energy Efficiency Improvements.** In July 2008, in partnership with Los Angeles County, the City participated in a program to use AB 811 funds for a program providing energy audits, energy efficiency upgrades, and installation of photovoltaic solar power systems permanently attached to real property to reduce out-of-pocket expenses to the property owner.

#### 4.3.3.4 Local Regulations

**Sustainable City Action Plan.** The City adopted the Sustainable City Action Plan on February 2, 2010, with the purpose of moving the City towards becoming a more sustainable City. Sustainability is defined in this plan as maximizing individual benefits and minimizing negative environmental impacts to ensure the long-term health of the environment for the enjoyment and use of current and future generations. The Sustainable City Action Plan includes initiatives, goals, and actions that are meant to guide City decision-makers in striving towards achieving a sustainable City. The following goals, initiatives, and actions are applicable to the proposed project:<sup>19</sup>

**Sustainability Goal 2:** Reduce electricity use in City operations by 25% by 2020.

**Sustainability Goal 3:** Reduce natural gas use in City operations by 15% by 2020.

<sup>18</sup> CPUC. 2008. California Long-Term Energy Efficiency Strategic Plan. September. Website: [cpuc.ca.gov/General.aspx?id=4125](http://cpuc.ca.gov/General.aspx?id=4125) (accessed August 2021).

<sup>19</sup> City of Long Beach. Office of Sustainability. 2010. Sustainable City Action Plan. Adopted February 2, 2010.

**Sustainability Goal 4:** Facilitate the development of at least 2 megawatts of solar energy on City facilities by 2020.

**Sustainability Goal 5:** Reduce community electricity use by 15% by 2020.

**Sustainability Goal 6:** Reduce community natural gas use by 10% by 2020.

**Sustainability Goal 7:** Facilitate the development of at least 8 megawatts of solar energy within the community (private rooftops) by 2020.

**Energy Initiative 2:** Ensure all of the City of Long Beach’s operational needs are met through energy efficiency, conservation, and renewable energy sources.

**Energy Initiative 3:** Reduce electricity and natural gas consumption of the Long Beach community.

**Action 1:** Increase energy efficiency in City facilities through ongoing energy audits, retrofits, weatherization, and preventative maintenance.

**Action 4:** Encourage the use of energy-efficient products including efficient lighting, energy monitoring systems, cool and green roofs, insulation, and efficient HVAC systems.

**Action 9:** Implement energy efficiency and conservation measures.

The City’s Sustainable City Commission works with staff every year to develop an Annual Work Plan that identifies projects and programs that will be prioritized for the upcoming year. In January 2021, a presentation was made to provide a 10-Year Report for the preliminary results of the Action Plan.<sup>20</sup>

#### 4.3.4 Methodology

The effects of the proposed CAAP and Safety Element Update are evaluated below to determine whether they would result in a significant adverse impact on the environment. The impact analysis presented in this section is based on the effect that implementation of the proposed project would have on energy use in the City.

#### 4.3.5 Analysis Approach

Site-specific subsequent activities or future projects that incorporate CAAP Actions and Adaptation Actions, as applicable, their associated locations, and physical effects on the environment related to energy are not known at this time. Therefore, this analysis uses a programmatic approach in evaluating possible energy impacts of implementation of the CAAP and the Safety Element Update.

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<sup>20</sup> City of Long Beach. 2021. Sustainable City Action Plan 10-Year Report. Website: <http://longbeach.legistar.com/View.ashx?M=F&ID=9091134&GUID=6F0A933E-6DF8-478C-B87B-227B7C7B8303> (accessed November 2021).

#### 4.3.6 Thresholds of Significance

The following thresholds of significance are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact with respect to energy if it would:

- Threshold 4.3.1:** Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, or
- Threshold 4.3.2:** Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

#### 4.3.7 Project Impacts

- Threshold 4.3.1:** **Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

**CAAP: Less Than Significant Impact.** The proposed project includes the proposed CAAP that was included as Mitigation Measure GHG-1 in the General Plan Land Use and Urban Design Elements Environmental Impact Report (2019 Certified Program EIR) and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development consistent with the adopted Land Use Element (LUE). The proposed CAAP is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. Implementation of CAAP Actions by the City or other agencies, such as performance of municipal energy and water audits (BE-7), may not be subject to discretionary approval and project-level CEQA review. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would help achieve the City's GHG emission targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a project does not include specific Tier 1 measures, equivalent measures for GHG emission reductions backed by substantial evidence must be provided for the project to utilize the Checklist in lieu of a project-level GHG analysis.

Tier 1 measures are required because they were quantified as part of the City's GHG reduction pathway for new development. Tier 1 measures or equivalent strategies would also be required for other improvements to existing development to demonstrate consistency with the goals and policies of the CAAP. Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. There are no Tier 2 measures identified for the Building and Energy sector. Implementation of these measures would support the CAAP Actions for Building and Energy by requiring increased access to and incentives for clean

electricity (BE-1 and BE-5) and increase use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures. The installation of infrastructure to support clean energy alternatives such as rooftop solar and electric vehicle charging stations would not result in substantial energy demand during construction or installation. Other Building and Energy CAAP Actions, supported by the measures included on the CAAP Checklist would increase energy efficiency of existing facilities, electrify new residential and commercial buildings, and reduce emissions from local oil and gas extraction. As the measures to support the CAAP Actions related to Building and Energy are largely improvements to existing facilities (e.g., rooftop solar) or operational programs to reduce emissions, these measures to support the CAAP Actions are designed to minimize future energy use of future development and would not result in wasteful or inefficient energy use during construction or operation of future discretionary projects. In addition, by incorporating sustainability elements with existing and proposed facilities, the proposed CAAP would result in a beneficial effect to the City's overall energy demand and would not result in any wasteful or inefficient energy usage. As described in the *CAAP Checklist: Technical Support Documentation* (Appendix D), the CAAP Business as Usual (BAU) forecast projects growth in electricity use from 2015–2030 including 19,970 MWh for residential development, 85,529 MWh for commercial development, and 153,269 MWh for industrial development. Therefore, CAAP Actions BE-1 and BE-2 are included on the CAAP Checklist to ensure that future projects that implement these CAAP Actions would achieve the City's "fair share" contribution for electricity reduction and associated emissions reductions for future discretionary projects.

Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 2 measures for the Transportation sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service (T-1), providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5), complying with City's TDM requirements (T-7), and complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to SB 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Similar to the Building and Energy CAAP Actions, future projects that include the development of new transit facilities and increased residential, commercial, and mixed-use development would be evaluated for transit service at the time such discretionary projects are submitted for review and approval. Other Tier 2 measures to support the CAAP Actions for Transportation included on the CAAP Checklist are designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establishing bus-only lanes, and expanding electric-vehicle charging infrastructure to further reduce emissions.

Tier 1 measures required for the Waste sector include the recycling of appropriate materials and organics composting. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion. Implementation of the Tier 1 measures would support CAAP Actions for Waste by requiring recycling (W-1) and organic waste collection and processing (W-2 and W-3). Any new construction required to facilitate such actions would be subject

to project-level CEQA review. Other CAAP Actions for Waste, supported by the measures included on the CAAP Checklist would expand community-wide participation in organic waste collection and diversion.

As described above, there are several measures to implement the CAAP Actions that would be implemented with future discretionary projects, which would involve retrofits to existing buildings, new transit and waste facilities, and changes to the existing streetscape such as expanded bicycle and pedestrian networks. Future discretionary projects would be subject to CEQA level review.

Several measures to implement the CAAP Actions include improvements or programs that would apply to existing buildings, facilities, and infrastructure within the City, and no construction would occur. All future discretionary projects that utilize the CAAP Checklist to achieve the City's GHG emissions targets would be reviewed in accordance with CEQA and would require further evaluation to demonstrate that construction activities would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. However, with incorporation of CAAP Actions, energy use will be minimized, and the use of alternative energy sources will be maximized.

Specific construction and operation information for future projects that utilize the CAAP Checklist are unknown at this time. Future discretionary projects that implement measures to support the CAAP Actions would be reviewed on a project- by-project basis, and mitigation would be identified during project-level review as appropriate. It should be noted that the construction of these future discretionary projects does not constitute the CAAP project; they are projects that would be incorporating measures to support the CAAP Actions, which in and of themselves do not involve the construction of buildings. All future discretionary projects that utilize the CAAP Checklist to achieve the City's GHG emissions targets would be reviewed under CEQA. Therefore, potential impacts of the measures to support the CAAP Actions to result in wasteful, inefficient, or unnecessary consumption of energy resources, would be less than significant, and no mitigation would be required.

In addition to the Tier 1 and Tier 2 measures to support the CAAP Actions related to Building and Energy, Transportation, and Waste that would apply to future development to achieve the GHG emissions target of the CAAP, the proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. The Adaptation Actions provide general strategies that may be needed to lessen climate change based on the CAAP Vulnerability Assessment. While the Adaptation Actions would not be required to meet the City's GHG reduction targets, Adaptation Actions are listed in the CAAP Checklist for future discretionary projects, as applicable, to help lessen the impacts of climate change and demonstrate consistency with the overall goals and strategies of the CAAP. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions to lessen the impacts of climate change on critical infrastructure and public facilities. The proposed CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact that would be accomplished through implementation of the Adaptation Actions. There is not sufficient information at this time to analyze potential future physical improvements that are suggested as Adaptation Actions in the CAAP as specific projects and locations are unknown. Additional analysis will be needed to develop specific adaptation

approaches and projects at specific locations, and future discretionary improvements would be analyzed on a project level pursuant to CEQA and would require further evaluation to demonstrate that such projects would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. As such, impacts would be less than significant, and no mitigation would be required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development and, as such, would not result in any potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the Safety Element Update would have no impact on energy, and no mitigation is required.

**Threshold 4.3.2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

**CAAP: Less Than Significant Impact.** As described above, energy usage during construction would be temporary in nature and all future discretionary projects utilizing the CAAP Checklist would be reviewed in accordance with CEQA to demonstrate that construction activities would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

In addition, measures to support the CAAP Actions would be implemented with future discretionary projects to support energy conservation and renewable energy, encourage alternative transportation, promote mixed-use development, and encourage recycling compliance and expanded organic waste collection. These measures to support the CAAP Actions would help to reduce energy use through the reduction of fossil fuel consumption, reduce vehicle trips and VMT, and foster energy efficiency. Thus, implementation of the measures to support the CAAP Actions would promote energy efficiency and would support the goals of the City's Sustainable City Action Plan.

In addition, energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The CAAP Checklist Tier 1 measures for the Building and Energy sector require increased access to and incentives for clean electricity (BE-1 and BE-5) and the increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures that would be consistent with the intent of the Renewable Portfolio Standards, Title 24, CALGreen Code, and the Energy Efficiency Strategic Plan.

Further, the proposed CAAP identifies Adaptation Actions that prioritize the locations and types of future projects that may be needed to lessen climate change based on the CAAP Vulnerability

Assessment. There is not sufficient information at this time to analyze potential future physical improvements that are suggested as adaptation strategies in the proposed CAAP, such as elevating infrastructure or creating sand dunes to lessen the impacts of flooding due to climate change; however, it is not expected that these adaptations strategies would generate substantial energy demand and any future projects would undergo project-level CEQA review as required.

Therefore, the proposed CAAP would result in both a decrease in energy demands overall (through improvements in efficiency in buildings, vehicles, and infrastructure) and an increase in renewable energy production. Furthermore, the proposed measures to support the CAAP Actions would be implemented through future discretionary projects, which would be reviewed under CEQA and would be required to undergo the Site Plan Review process. Therefore, potential impacts of the measures to support the CAAP Actions to result in wasteful, inefficient, or unnecessary consumption of energy resources, during project operation, would be less than significant, and no mitigation would be required.

Thus, implementation of the CAAP would not conflict with or obstruct the City's Sustainable City Action Plan or other State plans related to energy efficiency. Potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant, and no mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development and, as such, would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, the Safety Element Update would have no impact on energy, and no mitigation is required.

#### **4.3.8 Level of Significance Prior to Mitigation**

The proposed project would result in less than significant impacts related to energy, and no mitigation is required.

#### **4.3.9 Regulatory Compliance Measures and Mitigation Measures**

The proposed project does not include the physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action, does not include any project design features related to energy.

#### **4.3.10 Level of Significance after Mitigation**

There would be no significant unavoidable adverse impacts related to energy, and no mitigation is required.

#### **4.3.11 Cumulative Impacts**

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future

projects. The proposed project does not include physical improvements or development. Future projects to implement CAAP Actions would be subject to project-level CEQA review as required. The proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) measures and encouraged (Tier 2) measures that support the CAAP Actions and would help achieve the City's GHG emissions targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). As described above, the measures to support the CAAP Actions support energy conservation and renewable energy, encourage alternative transportation, promote mixed-use development, and encourage recycling compliance and expanded organic waste collection. These CAAP Actions would help to reduce energy use through the reduction of fossil fuel consumption, reduce vehicle trips and VMT, and fostering energy efficiency. Thus, implementation of the CAAP Actions would promote energy efficiency and not cumulatively contribute to energy impacts.

Further, the Adaptation Actions prioritize the locations and types of future discretionary projects that may be needed to lessen climate change based on the CAAP Vulnerability Assessment. There is not sufficient information at this time to analyze potential future physical improvements that are suggested as adaptation strategies in the CAAP, such as elevating infrastructure or creating sand dunes to lessen the impacts of flooding due to climate change; however, it is not expected that these adaptations strategies would generate substantial energy demand. Therefore, Adaptation Actions would not cumulatively contribute to energy impacts. No mitigation is required.

The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant impacts. Therefore, the Safety Element Update would not cumulatively contribute to energy impacts. No mitigation is required.

## 4.4 GREENHOUSE GAS EMISSIONS

This section summarizes existing greenhouse gas (GHG) emissions and discusses global climate change, its causes, and the contribution of human activities. This section also estimates potential impacts associated with GHG emissions that would result from implementation of the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update Project (proposed project). The analysis contained in this section is based on the Draft *Climate Action and Adaptation Plan* (Appendix B), the Draft *Safety Element Update* (Appendix C), and the *Climate Action and Adaptation Plan Consistency Review Checklist (CAAP Checklist): Technical Support Documentation* (ESA 2022) (Appendix D). As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element Update and is considered a policy/planning action. The proposed project does not include physical improvements or development and project-level impacts from implementation of future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Therefore, the analysis in this Subsequent Environmental Impact Report (SEIR) focuses on the potential programmatic-level impacts of the CAAP, which includes both CAAP Actions and Adaptation Actions, potential impacts from the measures that support CAAP Actions required for future discretionary projects that would utilize the CAAP Checklist for CEQA GHG streamlining, and the potential programmatic level impacts of the Safety Element Update.

### 4.4.1 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Initial Study/Notice of Preparation (IS/NOP). For copies of the IS/NOP comment letters, refer to Appendix A of this SEIR. One comment letter included comments related to GHG emissions.

The letter from the California Department of Transportation (Caltrans) received on September 23, 2021, stated Caltrans' support of the City's efforts to reduce GHG emissions and provided information on additional resources related to policies, plans, guidance, and strategies related to climate change impacts and adaptation strategies.

### 4.4.2 Existing Environmental Setting

#### 4.4.2.1 Existing Planning Area

The CAAP and Safety Element Update address all land within the City's jurisdictional limits. Throughout this Draft SEIR, these areas are referred to as the "planning area."

The planning area encompasses approximately 50 square miles within the limits of the City of Long Beach (excluding the City of Signal Hill, which is completely surrounded by the City of Long Beach) in the southern region of Los Angeles County. The planning area is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton, Paramount, and Bellflower; and on the east by the Cities of Lakewood, Hawaiian Gardens, Cypress, Los Alamitos, and Seal Beach. Additionally, the City of Signal Hill is centrally located within the planning area and is completely surrounded by development in the City of Long Beach.

The planning area is currently developed and consists of a mix of residential, commercial, medical, institutional, industrial, and open space and recreation uses. These uses currently generate GHG emissions from area, mobile, stationary, waste, and water sources as well as indirect emissions from sources associated with energy consumption.

#### 4.4.2.2 Background

The following section provides background information on GHGs and global climate change.

**Global Climate Change.** Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose  $0.6 \pm 0.2^\circ$  Celsius ( $^\circ\text{C}$ ) or  $1.1 \pm 0.4^\circ$  Fahrenheit ( $^\circ\text{F}$ ) in the 20<sup>th</sup> century. The prevailing scientific evidence on climate change demonstrates that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide ( $\text{CO}_2$ ) and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.<sup>1</sup>

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are the following:

- Carbon dioxide ( $\text{CO}_2$ )
- Methane ( $\text{CH}_4$ )
- Nitrous oxide ( $\text{N}_2\text{O}$ )
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride ( $\text{SF}_6$ )

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as  $\text{CO}_2$ , methane, and  $\text{N}_2\text{O}$ , some gases, like HFCs, PFCs, and  $\text{SF}_6$  are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water

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

vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this analysis, the term “GHGs” will refer collectively only to the six gases listed above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO<sub>2</sub> over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO<sub>2</sub> equivalents” (CO<sub>2</sub>e). Table 4.4.A shows the GWP for each type of GHG. For example, sulfur hexafluoride is 22,800 times more potent at contributing to global warming than carbon dioxide.

**Table 4.4.A: Global Warming Potential of Greenhouse Gases**

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide (CO <sub>2</sub> )	50-200	1
Methane (CH <sub>4</sub> )	12	25
Nitrous Oxide (N <sub>2</sub> O)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50,000	7,390
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10,000	12,200
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	22,800

Source: *Climate Change 2007: The Physical Science Basis* (Intergovernmental Panel on Climate Change [IPCC] 2007).

The following summarizes the characteristics of the six GHGs and black carbon. Black carbon also contributes to climate change and is therefore discussed below.

**Carbon Dioxide.** In the atmosphere, carbon generally exists in its oxidized form, as CO<sub>2</sub>. Natural sources of CO<sub>2</sub> include the respiration (breathing) of humans, animals and plants, volcanic out gassing, decomposition of organic matter and evaporation from the oceans. Human caused sources of CO<sub>2</sub> include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO<sub>2</sub> each year, far outweighing the 7 billion tons of man-made emissions of CO<sub>2</sub> each year. Nevertheless, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO<sub>2</sub>, and consequently, the gas is building up in the atmosphere.

In 2019, total annual CO<sub>2</sub> accounted for approximately 83 percent of California's overall GHG emissions.<sup>2</sup> Transportation is the single largest source of CO<sub>2</sub> in California, which is primarily comprised of on-road travel. Electricity production, industrial and residential sources also make important contributions to CO<sub>2</sub> emissions in California.

**Methane.** Methane (CH<sub>4</sub>) is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH<sub>4</sub> emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation in dairy cows, manure management, and rice cultivation are also significant sources of CH<sub>4</sub> in California. Total annual emissions of CH<sub>4</sub> accounted for approximately 9 percent of GHG emissions in California in 2019.

**Nitrous Oxide.** Nitrous oxide (N<sub>2</sub>O) is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N<sub>2</sub>O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N<sub>2</sub>O emissions in California. Nitrous oxide emissions accounted for approximately 3 percent of GHG emissions in California in 2019.

**Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride.** HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.<sup>3</sup> PFCs and SF<sub>6</sub> are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry has resulted in greater use of PFCs. HFCs, PFCs, and SF<sub>6</sub> accounted for about 5 percent of GHG emissions in California in 2019.<sup>4</sup>

**Black Carbon.** Black carbon is the most strongly light-absorbing component of particulate matter (PM) formed by burning fossil fuels such as coal, diesel, and biomass. Black carbon is emitted directly into the atmosphere in the form of particulate matter less than 2.5 microns in size (PM<sub>2.5</sub>) and is the most effective form of PM, by mass, at absorbing solar energy. Per unit of mass in the atmosphere, black carbon can absorb one million times more energy than CO<sub>2</sub>.<sup>5</sup>

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<sup>2</sup> California Air Resources Board (CARB). 2021. GHGs Descriptions & Sources in California. Website: [ww2.arb.ca.gov/ghg-descriptions-sources](http://ww2.arb.ca.gov/ghg-descriptions-sources) (accessed October 2021).

<sup>3</sup> The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

<sup>4</sup> CARB. 2021. op cit.

<sup>5</sup> United States Environmental Protection Agency (USEPA). 2017. Black Carbon, Basic Information. February 14, 2017. Website: [19january2017snapshot.epa.gov/www3/airquality/blackcarbon/basic.html](http://19january2017snapshot.epa.gov/www3/airquality/blackcarbon/basic.html) (accessed September 2021).

Black carbon contributes to climate change both directly, such as absorbing sunlight, and indirectly, such as affecting cloud formation. However, because black carbon is short-lived in the atmosphere, it can be difficult to quantify its effect on global-warming.

Most U.S. emissions of black carbon come from mobile sources (52 percent), particularly from diesel fueled vehicles.<sup>6</sup> The other major source of black carbon is open biomass burning, including wildfires, although residential heating and industry also contribute. Black carbon emissions in the U.S. are projected to decline substantially by 2030, largely due to controls on new mobile diesel emissions.<sup>7</sup>

**Effects of Global Climate Change.** Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global climate change may also result in impacts to local air quality from increased ground-level ozone and particulate matter.<sup>8</sup>

Additionally, according to the 2006 California Climate Action Team (CAT) Report,<sup>9</sup> the following climate change effects, which are based on trends established by the United Nations Intergovernmental Panel on Climate Change (IPCC), can be expected in California over the course of the next century:

- The loss of sea ice and mountain snow pack, resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;<sup>10</sup>
- Rise in global average sea level, primarily due to thermal expansion and melting of glaciers and ice caps in the Greenland and Antarctic ice sheets;<sup>11</sup>
- Changes in weather that include widespread changes in precipitation, ocean salinity, wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;<sup>12</sup>

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<sup>6</sup> USEPA. 2017. Black Carbon, Basic Information. February 14, 2017. Website: [19january2017snapshot.epa.gov/www3/airquality/blackcarbon/basic.html](https://www.epa.gov/air-quality/black-carbon/basic.html) (accessed September 2021).

<sup>7</sup> Ibid.

<sup>8</sup> USEPA. 2020. Air Quality and Climate Change Research. Website: <https://www.epa.gov/air-research/air-quality-and-climate-change-research> (accessed September 2021).

<sup>9</sup> California Environmental Protection Agency (CalEPA). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

- Decline of the Sierra snowpack, which accounts for approximately one-half of the surface water storage in California by 70 percent to as much as 90 percent over the next 100 years;<sup>13</sup>
- Increase in the number of days conducive to ozone (O<sub>3</sub>) formation by 25 to 85 percent (depending on the future temperature scenario) in high O<sub>3</sub> areas of Los Angeles and the San Joaquin Valley by the end of the 21st century;<sup>14</sup> and
- High potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level.<sup>15</sup>

A summary of these potential effects is provided in Table 4.4.B, below.

**Effects of Rising Ocean Levels in California.** Rising ocean levels, more intense coastal storms, and warmer water temperatures may increasingly threaten the Long Beach coastal region. As previously described, global surface temperatures have increased by 1.5 degrees Fahrenheit (°F) during the period from 1880 to 2012, with temperatures anticipated to rise in California by 3 to 10.5°F by the end of the century.

Rising sea levels may affect the natural environment in the coming decades by eroding beaches, converting wetlands to open water, exacerbating coastal flooding, and increasing the salinity of estuaries and freshwater aquifers. Coastal headlands and beaches are expected to erode at a faster pace in response to future sea level rise. The California Coastal Commission estimates that 450,000 acres of wetlands exist along the California coast,<sup>16</sup> but additional work is needed to evaluate the extent to which these wetlands would be degraded over time, or to what extent new wetland habitat would be created if those lands are protected from further development. Cumulatively, the effects of sea level rise may be combined with other potential long-term factors such as changes in sediment input and nutrient runoff. The cumulative impacts of physical and biological change due to sea level rise on the quality and quantity of coastal habitats are not well understood.<sup>17</sup>

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<sup>12</sup> Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. February.

<sup>13</sup> CalEPA. 2006, op. cit.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> California Coastal Commission (CCC). Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone. Website: <http://www.coastal.ca.gov/wetrev/wetch4.html> (accessed September 2021).

<sup>17</sup> Climate Change Science Program (CCSP) 4.1. January 15, 2009, 1 of 784 Final Report, United States CCSP, Synthesis and Assessment Product 4.1. Coastal Sensitivity to Sea-Level Rise: A Focus on the Mid-Atlantic Region. Lead Agency: U.S. Environmental Protection Agency, Other Key Participating Agencies: U.S. Geological Survey, National Oceanic and Atmospheric Administration. Contributing Agencies: Department of Transportation.

**Table 4.4.B: Potential Impacts of Global Warming and Expected Consequences for California**

Potential Water Resource Impacts	Anticipated Consequences Statewide
Reduction of the State’s average annual snowpack	<ul style="list-style-type: none"> <li>• The decline of the Sierra snowpack would lead to a loss in half of the surface water storage in California by 70% to 90% over the next 100 years</li> <li>• Potential loss of 5 million acre-feet or more of average annual water storage in the State’s snowpack</li> <li>• Increased challenges for reservoir management and balancing the competing concerns of flood protection and water supply</li> <li>• Higher surface evaporation rates with a corresponding increase in tropospheric water vapor</li> </ul>
Rise in average sea level	<ul style="list-style-type: none"> <li>• Potential economic impacts related to coastal tourism, commercial fisheries, coastal agriculture, and ports</li> <li>• Increased risk of flooding, coastal erosion along the State’s coastline, seawater intrusion into the Sacramento-San Joaquin River Delta (Delta) and levee systems</li> </ul>
Changes in weather	<ul style="list-style-type: none"> <li>• Changes in precipitation, ocean salinity, and wind patterns</li> <li>• Increased likelihood for extreme weather events, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones</li> </ul>
Changes in the timing, intensity, location, amount, and variability of precipitation	<ul style="list-style-type: none"> <li>• Potential increased storm intensity and increased potential for flooding</li> <li>• Possible increased potential for droughts</li> <li>• Long-term changes in vegetation and increased incidence of wildfires</li> <li>• Changes in the intensity and timing of runoff</li> <li>• Possible increased incidence of flooding and increased sedimentation</li> <li>• Sea level rise and inundation of coastal marshes and estuaries</li> <li>• Increased salinity intrusion into the Delta</li> <li>• Increased potential for Delta levee failure</li> <li>• Increased potential for salinity intrusion into coastal aquifers (groundwater)</li> <li>• Increased potential for flooding near the mouths of rivers due to backwater effects</li> </ul>
Increased water temperatures	<ul style="list-style-type: none"> <li>• Increased environmental water demand for temperature control</li> <li>• Possible increased problems with foreign invasive species in aquatic ecosystems</li> <li>• Potential adverse changes in water quality, including the reduction of dissolved oxygen levels</li> <li>• Possible critical effects on listed and endangered aquatic species</li> </ul>
Changes in urban and agricultural water demand	<ul style="list-style-type: none"> <li>• Changes in demand patterns and evapotranspiration</li> </ul>
Increase in the number of days conducive to O <sub>3</sub> formation	<ul style="list-style-type: none"> <li>• Increased temperatures</li> <li>• Potential health effects, including adverse impacts to respiratory systems</li> </ul>

Source: *Environmental Water Account Draft Supplemental EIS/EIR to the Environmental Water Account Final EIS/EIR, Bureau of Reclamation Mid-Pacific Region, Sacramento, California (U.S. Department of the Interior, October 2007).*

EIR = Environmental Impact Report

EIS = Environmental Impact Statement

O<sub>3</sub> = ozone

Sea level along the west coast of the United States is affected by a number of factors, including climate patterns such as El Niño, effects from the melting of modern and ancient ice sheets, and geologic processes such as plate tectonics. Regional projections for California, Oregon, and Washington show a sharp distinction at Cape Mendocino in northern California. South of that point, sea-level rise is expected to be very close to global projections. Projections are lower north of Cape Mendocino because the land is being pushed upward as the ocean plate moves under the continental plate along the Cascadia Subduction Zone.

*The Final Climate Change Vulnerability Assessment Results*<sup>18</sup> (2018) prepared for the Long Beach CAAP identifies the California Ocean Protection Council’s (OPC) guidance on sea level rise in its State of California Sea-Level Rise Guidance 2018 Update (OPC, March 2018), which relied on previous findings from its *Rising Seas in California, an Update on Sea-Level Rise Science* [April 2017]). The OPC developed future sea level rise projections at each tide station along the California coast. The OPC guidance incorporated a range of global emissions scenarios ranging from aggressive emissions reductions to no emissions reductions through the end of the century. Sea level rise will cause many harmful economic, ecological, physical, and social impacts but incorporating sea level rise impacts into agency decisions can help mitigate some of these potential impacts. The updated State of California’s Sea-Level Guidance Document recommends the ranges of sea level rise presented in the March 2018 OPC guidance report as a starting place for analysis of potential impacts related to sea level rise. Table 4.4.C presents sea level rise projections for Los Angeles based on the OPC guidance.

**Table 4.4.C: Sea Level Rise Projections for Los Angeles, California**

Year (Emissions Scenario)	Inches Above 1991–2009 Mean Sea Level			
	Median (50% probability of exceedance)	Likely Range (67% likely range)	1-in-20 Chance (5% probability of exceedance)	1-in-200 Chance (0.5% probability of exceedance)
2030	4	2 to 6	7	8
2050	8	6 to 12	14	22
2100 (low emissions)	16	8 to 25	36	65
2100 (very high emissions)	26	16 to 38	49	80

Source: *State of California Sea-Level Rise Guidance 2018 Update* (OPC, March 2018).  
OPC = California Ocean Protection Council

Rising sea levels may also affect the built environment, including coastal development such as buildings, roads, and infrastructure. Coastal areas within the City are relatively flat, low-lying, and developed and may be directly affected by the change in sea level resulting from global climate change.

Areas that are essentially at sea level are potentially exposed to the rising of the ocean levels and could result in on-site flood conditions. A recent wave uprush study completed for a project along the coast in Long Beach indicated that sea levels along the Long Beach coast could be expected to

<sup>18</sup> AECOM. 2018. *Final Climate Change Vulnerability Assessment Results*.

rise 0.5 to 2.6 feet (ft) by 2060 and 1.4 to 5.5 ft by 2100.<sup>19</sup> This is consistent with the sea level rise projections included in Table 4.4.C above. In addition, the *Final Climate Change Vulnerability Assessment Results*<sup>20</sup> report identifies the sea level rise vulnerability for geographical areas, buildings and facilities, parks and open space, transportation assets, energy assets, stormwater assets, wastewater assets, and potable water assets based on 11, 24, 36, and 66 inches of sea level rise.

**Emissions Inventories.** An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, and California GHG emission inventories.

**Global Emissions.** Worldwide emissions of GHGs in 2018 totaled 25.6 billion metric tons (MT) of CO<sub>2</sub>e. Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change.<sup>21</sup>

**United States Emissions.** In 2019, the year for which the most recent data are available, the United States emitted about 6,558 million metric tons of CO<sub>2</sub>e (MMT CO<sub>2</sub>e). Overall, emissions in 2019 decreased by 1.7 percent since 2018 and were 13 percent 2005 levels. This decrease was driven largely by a decrease in emissions from fossil fuel combustion resulting from a decrease in total energy use in 2019 compared to 2018 and a continued shift from coal to natural gas and renewables in the electric power sector. Of the six major sectors – residential, commercial, agricultural, industry, transportation, and electricity generation – transportation accounted for the highest amount of GHG emissions in 2019 (approximately 29 percent), with electricity generation second at 25 percent and emissions from industry third at 23 percent.<sup>22</sup>

**State of California Emissions.** The State emitted approximately 418.2 MMT CO<sub>2</sub>e emissions in 2019, 7.2 MMT CO<sub>2</sub>e lower than 2018 levels and almost 13 MMT CO<sub>2</sub>e below the 2020 GHG Limit of 431 MMT CO<sub>2</sub>e.<sup>23</sup> The California Air Resources Board (CARB) estimates that transportation was the source of approximately 40 percent of the State’s GHG emissions in 2019, followed by industrial sources at approximately 21 percent and electricity generation at 14 percent. The remaining sources of GHG emissions were agriculture at 8 percent, residential

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<sup>19</sup> AECOM. 2018. Final Climate Change Vulnerability Assessment Results.

<sup>20</sup> Ibid.

<sup>21</sup> United Nations Framework Convention on Climate Change (UNFCCC). 2021. GHG Data from UNFCCC. Website: [unfccc.int/process-and-meetings/transparency-and-reporting/greenhouse-gas-data/ghg-data-unfccc/ghg-data-from-unfccc](https://unfccc.int/process-and-meetings/transparency-and-reporting/greenhouse-gas-data/ghg-data-unfccc/ghg-data-from-unfccc) (accessed September 2021).

<sup>22</sup> USEPA. 2021. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019. Website: <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2019> (accessed October 2021).

<sup>23</sup> CARB. 2021. *California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators Report*. Website: [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2019/ghg\\_inventory\\_trends\\_00-19.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf) (accessed October 2021).

activities at 7 percent, commercial activities at 4 percent, high GWP at 5 percent, and waste at 2 percent.<sup>24</sup>

**City of Long Beach Emissions.** As part of preparing the City’s Draft CAAP (Appendix B), the City developed baseline GHG emissions inventories for the year 2015 for production and consumption “jurisdictional emissions”—those emissions sources over which the City and community have some amount of influence. These jurisdictional emissions sources are primarily aligned with the BASIC inventory methodology described in Appendix A of the Draft CAAP (Appendix B), except for the removal of port-based waterborne activities like cargo shipping.

As shown in Table 4.4.D below, the City’s 2015 total jurisdictional production emissions were 6.0 MT CO<sub>2</sub>e per capita or 4.5 MT CO<sub>2</sub>e per service population with the majority coming from stationary sources (49 percent) and transportation contributing the remainder (44 percent). The remaining approximately 6 percent comes from solid waste and wastewater.

**Table 4.4.D: City of Long Beach 2015 Jurisdictional Production Emissions Inventory by Subsector**

Sector/Subsector	MT CO <sub>2</sub> e/yr	Percent of Total
<b>Stationary Energy</b>	<b>1,377,291</b>	<b>49.20%</b>
Residential Energy	428,245	15.30%
Commercial and Institutional Buildings Energy	300,818	10.75%
Manufacturing Industries and Construction Energy	399,089	14.26%
Energy Industries	219,899	7.86%
Fugitive Emissions from Natural Gas	29,240	1.04%
<b>Transportation</b>	<b>1,244,981</b>	<b>44.48%</b>
On-Road Transportation	1,213,601	43.36%
Railways	11,883	<1.00%
Aviation	4,550	<1.00%
Off-Road Equipment	14,947	<1.00%
<b>Waste</b>	<b>176,850</b>	<b>6.32%</b>
Solid Waste	173,164	6.19%
Solid Waste Incineration	95	<1.00%
Wastewater	3,592	<1.00%
<b>TOTAL</b>	<b>2,799,123</b>	<b>100.00%</b>

Source: City of Long Beach (November 2020).

Note: Percentages may not appear to total correctly due to rounding

CO<sub>2</sub>e = carbon dioxide equivalent

MT CO<sub>2</sub>e/yr = metric tons of carbon dioxide equivalent per year

In addition, a consumption emissions inventory of the City of Long Beach was conducted for the Draft CAAP (Appendix B) for informational purposes, based on the average carbon generated in the production and use of goods and services by households in Long Beach. Consumption emissions are categorized as energy, transportation, or goods and services. The City’s 2015

<sup>24</sup> CARB. 2021. *California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators Report*. Website: [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2019/ghg\\_inventory\\_trends\\_00-19.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf) (accessed October 2021).

consumption emissions were 15.1 MT CO<sub>2</sub>e per capita with the majority coming from goods and services (50 percent) and transportation contributing (32 percent). The remaining approximately 18 percent comes from energy consumption.

### 4.4.3 Regulatory Framework

#### 4.4.3.1 Federal Regulations

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

This includes the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the Federal Clean Air Act, finding that six GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

**4.4.3.2 State Regulations Assembly Bill 1493 (2002).** In a response to the transportation sector's significant contribution to California CO<sub>2</sub> emissions, Assembly Bill (AB) 1493 was enacted on July 22, 2002. AB 1493 requires the California Air Resources Board (CARB) to set GHG emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. These standards (starting in model years 2009 to 2016) were approved by the CARB in 2004, but the needed waiver of Clean Air Act Preemption was not granted by the USEPA until June 30, 2009. CARB responded by amending its original regulation, now referred to as Low Emission Vehicle III, to take effect for model years starting in 2017 to 2025.

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

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

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

The Secretary of CalEPA leads the Climate Action Team (CAT) comprised of representatives from State agencies as well as numerous other boards and departments. CAT members work to coordinate statewide efforts to implement global warming emission reduction programs and the State Climate Adaptation Strategy. CAT is also responsible for reporting on the progress made toward meeting the statewide GHG targets that were established in the executive order and further defined under AB 32, the “Global Warming Solutions Act of 2006.” The first CAT Report to the Governor and State legislature was released in March 2006 and it presented 46 specific emission reduction strategies for reducing GHG emissions and reaching the targets established in the executive order. The most recent CAT Report to the Governor and State legislature was released in December 2010.

**Assembly Bill 32 (2006), California Global Warming Solutions Act.** California’s major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. CARB has established the level of GHG emissions in 1990 at 427 MMT CO<sub>2</sub>e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State’s projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008 and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT of CO<sub>2</sub>e, or approximately 30 percent, from the State’s projected 2020 emission level of 596 MMT of CO<sub>2</sub>e under a business-as-usual scenario (this is a reduction of 42 MMT CO<sub>2</sub>e, or almost 10 percent from 2002 to 2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State’s GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO<sub>2</sub>e);
- The Low-Carbon Fuel Standard (15.0 MMT CO<sub>2</sub>e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO<sub>2</sub>e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO<sub>2</sub>e).

The Scoping Plan identifies 18 emission reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related GHG targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high-speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures would result in a total reduction of 174 MMT CO<sub>2</sub>e by 2020.

On August 24, 2011, the CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust CEQA-equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade program took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

The CARB has not yet determined what amount of GHG reductions it recommends from local government operations and local land use decisions; however, the Scoping Plan states that land use planning and urban growth decisions will play an important role in the State's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions (meanwhile, the CARB is also developing an additional protocol for community emissions). The CARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. With regard to land use planning, the Scoping Plan expects an approximately 5.0 MMT CO<sub>2</sub>e reduction due to implementation of Senate Bill (SB) 375 (discussed later in this subsection).

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed CARB and CAT to identify a list of "discrete early action GHG reduction measures" that could be adopted and made enforceable by January 1, 2010. On January 18, 2007, the Governor signed EO S-1-07, further solidifying California's dedication to reducing GHGs by setting a new Low Carbon Fuel Standard. The executive order sets a target to reduce the carbon intensity of California transportation fuels by at least 10 percent by 2020 and directs the CARB to consider the Low Carbon Fuel Standard as a discrete early action measure. In 2011, the U.S. District Court issued an injunction preventing implementation of the Low Carbon Fuel Standard, ruling that it is unconstitutional. In 2012, the Ninth Circuit Court of Appeal stayed the District Court's injunction, allowing implementation of the Low Carbon Fuel Standard. The Ninth Circuit decided to uphold the Low Carbon Fuel Standard.

In June 2007, CARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on GWP Refrigerants, and Landfill CH<sub>4</sub> Capture).<sup>25</sup> Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code Section 38560.5. The CARB adopted additional early action measures in October 2007 that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of PFCs from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and SF<sub>6</sub> reductions from the non-electricity sector. The combination of early action measures is estimated to reduce statewide GHG emissions by nearly 16 MMT.<sup>26</sup>

CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020, and also sets the groundwork to reach long-term goals set forth in EOs S-3-05 and B-16-2012. The First Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan, and it also evaluates how to align the State's "longer-term" GHG reduction strategies with other

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<sup>25</sup> CARB. 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.

<sup>26</sup> CARB. 2007. "ARB approves tripling of early action measures required under AB 32" News Release 07-46. October 25.

State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. The CARB released a second update to the Scoping Plan, the 2017 Scoping Plan, to reflect the 2030 target set by EO B-30-15 and codified by SB 32.<sup>27</sup> The 2030 target is to reduce GHG emissions to 40 percent below 1990 levels by 2030.

**Senate Bill 97 (2007).** SB 97, signed by the Governor in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code, Sections 21083.05 and 21097), acknowledges climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the State Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA.

The California Natural Resources Agency adopted the amendments to the *State CEQA Guidelines* in January 2010, which went into effect in March 2010. The amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. The amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs when they perform individual project analyses.

**Senate Bill 375 (2008).** Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, the CARB approved GHG reduction targets in February 2011 for California’s 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). The CARB may update the targets every four years and must update them every eight years. MPOs in turn must demonstrate how their plans, policies and transportation investments meet the targets set by the CARB through Sustainable Community Strategies (SCS). The SCS are included with the Regional Transportation Plan (RTP), a report required by State law. However, if an MPO finds that their SCS will not meet the GHG reduction target, they may prepare an Alternative Planning Strategy (APS). The APS identifies the impediments to achieving the targets. Pursuant to SB 375, the Southern California Association of Governments (SCAG) reduction targets for per capita vehicular emissions are 8 percent by 2020 and 13 percent by 2035 as shown in Table 4.4.E.

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

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

**Table 4.4.E: Senate Bill 375 Regional Greenhouse Gas Emissions Reduction Targets**

Metropolitan Planning Organization	By 2020 (%)	By 2035 (%)
San Francisco Bay Area	10	19

<sup>27</sup> CARB. 2017. *California’s 2017 Climate Change Scoping Plan*. November.

**Table 4.4.E: Senate Bill 375 Regional Greenhouse Gas Emissions Reduction Targets**

Metropolitan Planning Organization	By 2020 (%)	By 2035 (%)
San Diego	15	19
Sacramento	7	19
Central Valley/San Joaquin	6–13	13–16
Los Angeles/Southern California	8	19

Source: California Air Resources Board (2018).

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

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

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

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

**Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197.** In summer 2016 the Legislature passed, and the Governor signed, SB 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in the April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps the State on the path toward achieving the 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an IPCC analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO<sub>2</sub>e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide

easier public access to air emissions data that are collected by the CARB was posted in December 2016.

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

**Executive Order B-55-18.** EO B-55-18, signed September 10, 2018, sets a goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” EO B-55-18 directs the CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO<sub>2</sub>e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

**Title 24, Building Standards Code and CALGreen Code.** In November 2008, the California Building Standards Commission established the California Green Building Standards (CALGreen) Code, which sets performance standards for residential and nonresidential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2017.

**Cap and Trade.** The development of a cap-and-trade program was included as a key reduction measure of the CARB AB 32 Climate Change Scoping Plan. The cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by 2020 and ultimately achieving an 80 percent reduction from 1990 levels by 2050. The cap-and-trade emissions trading program developed by the CARB took effect on January 1, 2012, with enforceable compliance obligations beginning January 1, 2013. The cap-and-trade program aims to regulate GHG emissions from the largest producers in the State by setting a statewide firm limit, or cap, on allowable annual GHG emissions. The cap was set in 2013 at approximately 2 percent below the emissions forecast for 2020. In 2014, the cap declined approximately 2 percent. Beginning in 2015 and continuing through 2020, the cap has been declining approximately 3 percent annually. The CARB administered the first auction on November 14, 2012, with many of the qualified bidders representing corporations or organizations that produce large amounts of GHG emissions, including energy companies, agriculture and food industries, steel mills, cement companies, and universities. On January 1, 2015, compliance obligation began for distributors of transportation fuels, natural gas, and other fuels. California is working closely with British Columbia, Ontario, Quebec, and Manitoba through the Western Climate Initiative to develop harmonized cap-and-trade programs that will

deliver cost-effective emission reductions. Two lawsuits have been filed against cap-and-trade, but the cap-and-trade program will be implemented as-is until further notice.<sup>28</sup>

**Executive Order N-79-20.** EO N-79-20, which was signed by the Governor on September 23, 2020, sets the following goals for the State: 100 percent of in-state sales of new passenger cars and trucks shall be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the State shall be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and 100 percent of off-road vehicles and equipment in the State shall be zero-emission by 2035, where feasible.

#### 4.4.3.3 Regional Regulations

The City is part of the South Coast Air Basin (Basin) and is under the jurisdiction of SCAG and the South Coast Air Quality Management District (SCAQMD). SCAG's 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted September 3, 2020, is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. A GHG consistency analysis was conducted to determine whether or not the proposed project would be consistent with the RTP/SCS.

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

On September 3, 2020, SCAG adopted Connect SoCal–The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS).<sup>29</sup> In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled (VMT) from automobiles and light-duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, CARB has set GHG reduction targets at 8 percent below 2005 per capita emissions levels by 2020, and 19 percent below 2005 per capita emissions levels by 2035. The RTP/SCS lays out a strategy for the region to meet these targets. Overall, the SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high-quality transit areas and livable corridors, and creating neighborhood mobility areas to integrate land use and transportation

<sup>28</sup> CARB. 2014. Cap-and-Trade Program. Website: [www.arb.ca.gov/cc/capandtrade/capandtrade.htm](http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm) (accessed September 2021).

<sup>29</sup> Southern California Association of Governments (SCAG). 2020. Connect SoCal: The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments. Website: [https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan\\_0.pdf?1606001176](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176) (accessed September 2021).

and plan for more active lifestyles.<sup>30</sup> However, the SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

**South Coast Air Quality Management District.** In 2008, the SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the Basin. The Working Group developed several different options that are contained in the SCAQMD 2008 draft guidance document titled Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans<sup>31</sup> that could be applied by lead agencies. On September 28, 2010, SCAQMD Working Group Meeting #15 provided further guidance, including a tiered approach for evaluating GHG emissions for development projects where the SCAQMD is not the lead agency. The SCAQMD has not presented a finalized version of these thresholds to the governing board.

The SCAQMD identifies the emissions level for which a project would not be expected to substantially conflict with any State legislation adopted to reduce statewide GHG emissions. As such, the utilization of a service population represents the rates of emissions needed to achieve a fair share of the State’s mandated emissions reductions. Overall, the SCAQMD identifies a GHG efficiency level that, when applied statewide or to a defined geographic area, would meet the year 2020 and post-2020 emissions targets as required by AB 32 and SB 32. If projects are able to achieve targeted rates of emissions per the service population, the State will be able to accommodate expected population growth and achieve economic development objectives, while also abiding by AB 32’s emissions target and future post-2020 targets.

#### 4.4.3.4 Local Regulations

**City of Long Beach Sustainable City Action Plan.** The City of Long Beach’s Sustainable City Action Plan (SCAP) was adopted in February 2010. The SCAP is intended to guide operational, policy, and financial decisions to create a more sustainable Long Beach. The SCAP includes initiatives, goals, and actions that will move Long Beach toward becoming a sustainable city. These goals and actions included in the SCAP relate to the following:

- Buildings & Neighborhoods
- Energy
- Green Economy & Lifestyle
- Transportation
- Urban Nature
- Waste Reduction
- Water

<sup>30</sup> SCAG. 2020. Connect SoCal: The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments. Website: [https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan\\_0.pdf?1606001176](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176) (accessed September 2021).

<sup>31</sup> South Coast Air Quality Management District (SCAQMD). 2008. Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans.

#### 4.4.4 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact related to global climate change if it would:

**Threshold 4.4.1:** Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

**Threshold 4.4.2:** Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases.

#### 4.4.5 Project Impacts

*State CEQA Guidelines* Section 15064.4 assists lead agencies in determining the significance of the impacts of GHG emissions and gives them discretion to determine whether to assess emissions quantitatively or qualitatively. If a qualitative rather than quantification-based approach is used, then Section 15064.4 recommends qualitative factors that may be used in the determination of significance. These factors include the extent to which the project may increase or reduce GHG emissions compared to the existing environment, whether the project exceeds an applicable significance threshold, and the extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs. *State CEQA Guidelines* Section 15064.4 does not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including by looking to thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), as long as any threshold chosen is supported by substantial evidence (*State CEQA Guidelines* Section 15064.7(c)). The California Natural Resources Agency has also clarified that the *State CEQA Guidelines* focus on the impacts of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see also *State CEQA Guidelines* Section 15064(h)).<sup>32</sup>

As a programmatic document, this Draft SEIR does not speculate on the individual environmental impacts of specific projects that would implement the proposed CAAP through future discretionary projects for CAAP Actions or Adaptation Actions or through projects that utilize the CAAP Checklist for CEQA GHG streamlining. However, implementation of the CAAP is considered as part of this analysis to the degree specific information about implementation is known. Calculation details, assumptions, and tables related to the 2015 baseline GHG inventory, and 2030, 2040, and 2050 emissions projections, and CAAP Actions are provided in Appendix B to this Draft SEIR (also see CAAP Appendix A, *Greenhouse Gas Inventory Methodology and 2030 Reduction Target Pathway*, and CAAP Appendix B, *Adaptation and Mitigation Actions – Additional Context*). The analysis in this Draft SEIR utilizes the quantitative analysis provided in Appendix B described above in combination with a

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<sup>32</sup> California Natural Resources Agency (CNRA), 2009. *2009 California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2008*. Website: [https://resources.ca.gov/CNRALegacyFiles/docs/climate/Statewide\\_Adaptation\\_Strategy.pdf](https://resources.ca.gov/CNRALegacyFiles/docs/climate/Statewide_Adaptation_Strategy.pdf) (accessed December 2021).

qualitative analysis of the proposed CAAP's goals to substantiate the impact conclusion for this threshold.

Consistent with the requirements of *State CEQA Guidelines* Section 15168, this SEIR provides a program-level discussion of the impacts of implementing the CAAP that could result, rather than project-level or site-specific physical impacts of individual future projects. The OPR released a technical advisory on CEQA and climate change that provided some guidance on assessing the significance of GHG emissions, and states that “lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice,” and that while “climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment.”<sup>33</sup> Furthermore, the technical advisory states that “CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project.”<sup>34</sup>

The proposed CAAP includes 21 CAAP Actions and each action includes multiple implementing actions that are organized under three main categories (building energy, transportation, and waste). Therefore, future projects that implement the CAAP or utilize the CAAP Checklist could result in project-level GHG emissions that would contribute to the cumulative impact of GHGs on climate; or project-level GHG emissions that could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs at the project level. These future project-level impacts would be subject to individual CEQA review and project-specific mitigation would apply as needed.

**Threshold 4.4.1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**CAAP: Less Than Significant Impact.**

***Baseline.*** The GHG emissions analysis provided in the proposed CAAP considers a business-as-usual (BAU) forecast. The BAU scenario is an emissions forecast for the year 2050 that indicates how citywide emissions are anticipated to increase if the actions identified in the proposed CAAP are not taken by the City to reduce GHG emissions. This forecast accounts for the growth in population, housing, and employment anticipated for the City through the year 2050. The BAU scenario also takes into account the implementation of several important components of the State's GHG reduction strategy, including the Renewables Portfolio Standard Program (RPS), a State law that requires increasing amounts of renewable electricity in California, and various vehicle efficiency standards that will reduce GHG emissions from on-road transportation to help achieve California's 2030 GHG targets.

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<sup>33</sup> Governor's Office of Planning and Research (OPR). 2008. *Technical Advisory—CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*. June 19, 2008. Website: <https://opr.ca.gov/docs/june08-ceqa.pdf> (accessed February 4, 2022).

<sup>34</sup> Ibid.

The proposed CAAP estimates that the City's baseline GHG emissions in the year 2015 at approximately 4.5 MT CO<sub>2</sub>e per service population. The proposed CAAP estimates that the City's unmitigated (i.e., "BAU") emissions would decline to 3.3 MT CO<sub>2</sub>e per service population by 2030, 2.6 MT CO<sub>2</sub>e per service population by 2040, and 2.2 MT CO<sub>2</sub>e per service population by 2050. The reduction in citywide emissions over time is primarily due to implementation of State actions designed to reduce emissions from energy use and transportation.<sup>35</sup>

**Targets and Projections.** The proposed CAAP then considers the GHG emission reductions from State actions and from proposed CAAP Actions and subtracts the emissions reductions from the City's BAU forecast emissions to provide the estimated level of GHG emissions with proposed CAAP implementation. The City's GHG emissions with implementation of the proposed CAAP are compared to the proposed CAAP's 2030 target of 3.04 MT CO<sub>2</sub>e per service population, which aligns with the statewide 2030 target as codified in SB 32 and the 2017 Scoping Plan.

The proposed CAAP's 2030 target was selected based on guidance provided in the 2017 Scoping Plan and was developed to demonstrate consistency with the statewide 2030 target. The City's 2030 target is established on a per service population (SP) basis and aims to achieve emissions rates of 3.04 MT CO<sub>2</sub>e per SP. The CAAP's 2030 target of 3.04 MT CO<sub>2</sub>e/SP aligns with the statewide 2030 target as codified in SB 32 and the 2017 CARB Scoping Plan Update (see the *City of Long Beach Climate Action and Adaptation Plan GHG Emissions Reduction Target Options Memo #3* [AECOM, 2020] included in Appendix E).<sup>36</sup> This value is derived from an adjusted statewide emissions inventory that accounts for the same local emissions sources contained in the CAAP's emissions inventory for the City. This was done because community GHG inventories often do not include all of the same emissions sectors as the statewide inventory. Therefore, a scaled version of the full statewide emissions inventory was based on the emissions inventory sectors occurring in Long Beach, which is more appropriate for use in community CAAP target-setting because it draws a clearer correlation between the City's GHG target and its relationship to the State's own targets. After excluding emissions not included in the CAAP's inventory and forecast, the adjusted statewide 1990 inventory was 324.4 MMT CO<sub>2</sub>e (versus the full inventory of 431 MMT CO<sub>2</sub>e). To align with SB 32 (40 percent below 1990 levels by 2030), the 2030 target emissions level for the State would be 194.6 MMT CO<sub>2</sub>e. The total projected service population of California is 64.6 million; therefore, the adjusted SB 32 target for 2030 would be 3.04 MT CO<sub>2</sub>e/SP.

Implementation of the proposed CAAP, as a programmatic document implemented in addition to all other State GHG emission reductions required by legislation, would result in an overall

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<sup>35</sup> Such actions include California's RPS, which establishes the goal to procure 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030, utility energy efficiency programs directed by the California Public Utilities Commission, AB 1103 (which established the Commercial Energy Use Disclosure Requirement), and Solar Programs offered by the State. State actions that reduce emissions from transportation include: California's Pavley I and Corporate Average Fuel Economy (CAFE) standards, the Low Carbon Fuel Standard, electric vehicle policies and programs, and CARB's Tire Pressure Program and Heavy Duty Vehicle Aerodynamics Program. The Draft proposed CAAP also includes reductions from improved transportation and land use planning that result from SCAG's RTP/SCS, as required by SB 375.

decrease in GHG emissions citywide compared to both the 2015 baseline and the BAU forecasts. Implementation of the proposed CAAP would not result in a significant impact related to the generation of GHG emissions, either indirectly or directly, and would have a beneficial impact on GHG emissions in the City. Furthermore, as the proposed CAAP would reduce GHG emissions overall, this planning document would not result in a considerable contribution to the cumulative impact of GHG emissions.

It should be noted that the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that while the LUE would result in a significant and unavoidable impact for GHG emissions due to the proposed changes to existing land uses that would result from General Plan buildout conditions. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the significant and unavoidable impact identified in the 2019 Certified Program EIR. However, the proposed CAAP was included as Mitigation Measure (MM) GHG-1 for the Approved Project in order to reduce GHG emissions associated with General Plan buildout. As such, the proposed CAAP would result in a less than significant impact related to the generation of GHG emissions as it serves to mitigate and reduce GHG emissions anticipated by the adopted LUE. No mitigation is required.

**CAAP Actions.** As described above, the proposed project does not constitute approval for any physical improvements or development; however, implementation of the CAAP would be achieved through future projects implementing CAAP Actions by the City or other agencies. CAAP Actions, such as performance of municipal energy and water audits (BE-7), may not be subject to discretionary approval and project-level CEQA review. Future actions not subject to CEQA review are not considered in this programmatic CEQA document. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required.

CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). Implementation of the CAAP Actions and Adaptation Actions as part of future discretionary projects has the potential to involve new or remodeled construction that could result in short-term construction GHG emissions.

GHG emissions may occur over the short term associated with construction activities of future discretionary projects, which would produce combustion emissions from various sources, but primarily of emissions from equipment exhaust. During construction, GHGs are emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. Furthermore, fugitive CH<sub>4</sub> is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. Long-term GHG emissions are typically generated from mobile sources (e.g., vehicle trips), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Future discretionary

projects may utilize the CAAP Checklist for CEQA streamlining of GHG emissions and address construction GHG emissions qualitatively. However, some projects may have long construction periods or entail substantial excavation and grading that could result in construction-related GHG emissions that may be considered significant. Thus, the City retains the discretion on a project-by-project basis to consider whether a project's construction-related GHG emissions could be cumulatively considerable and require more detailed quantitative CEQA GHG emissions analysis and mitigation. The CAAP as a planning document does not include any specific physical improvements that would result in construction emissions.

CAAP Actions for the Building and Energy sector include zero-carbon electricity, building energy efficiency for municipal projects, reduction of energy use and supply of renewable energy, compliance with building energy codes and ordinances, and building energy efficiency upgrades. Implementation of these CAAP Actions for Buildings and Energy include requiring increased access and incentives for clean electricity (BE-1), the increased use of solar panels and community solar (BE-2 and BE-3), or equivalent measures. Installation of renewable energy infrastructure such as rooftop solar and electric vehicle charging stations would involve minor construction activities that are not expected to result in substantial construction-related GHG emissions. Other Building and Energy CAAP Actions would increase energy efficiency of existing facilities (BE-4 and BE-5), electrifying new residential and commercial buildings (BE-7), and reducing energy use and increasing renewable electricity supply for municipal projects (BE-6). Energy efficiency improvements such as energy management programs, energy audits, and appliance retrofits are anticipated to involve only minor construction activities and are not expected to result in substantial construction-related GHG emissions. There is also a CAAP Action for the City to take actions to reduce emissions from local oil and gas extraction (BE-8) such as through regulatory restrictions or additional monitoring. Any actions taken by the City in support of BE-8 are not anticipated to result in construction or operational GHG emissions, but any future project to implement such actions would be subject to project-level CEQA review.

CAAP Actions for the Transportation sector include trip reduction features to reduce VMT; incorporating pedestrian, bicycle, and electric vehicle charging infrastructure; and complying with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. They also include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of the CAAP Actions for Transportation would occur through projects that improving transit service (T-1); providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5); complying with City TDM requirements (T-7), complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to SB 743 (T-9); or through increasing employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Similar to the Building and Energy CAAP Actions, future projects that include the development of new transit facilities and increased residential, commercial, and mixed-use development would be evaluated for transit service at the time such discretionary projects are submitted for review and approval. CAAP Actions for Transportation are also designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establish bus-only lanes, and expand electric-vehicle charging infrastructure to further reduce emissions.

CAAP Actions for the Waste sector include recycling appropriate materials and organics waste diversion and incorporating on-site composting, mulching, and/or anaerobic digestion. Implementation of the CAAP Actions for Waste would occur by requiring recycling (W-1) and organic waste diversion (W-2). Any new construction required to facilitate such actions would be subject to project-level CEQA review. Other CAAP Actions for Waste would expand community-wide participation in organic waste collection and diversion by increasing capacity to process organic waste (W-4).

Specific project-level construction and operational activities that may occur with implementation of the CAAP Actions are unknown at this time. Future discretionary projects would be reviewed on a project-by-project basis, and mitigation would be identified during project-level review as appropriate. It should be noted that the future discretionary projects do not constitute the proposed project; they are future projects that implement CAAP Actions and may utilize the CAAP Checklist described below for CEQA GHG emissions streamlining but would ultimately be subject to project-level CEQA review. The proposed CAAP Actions were designed to programmatically reduce GHG emissions to meet the City's GHG reduction targets and would therefore result in a less than significant impact related to construction and operational GHG emissions.

**CAAP Checklist.** The proposed CAAP was included as MM GHG-1 in the 2019 Certified Program EIR, and once the CAAP is adopted, it will serve as a qualified "Plan for the Reduction of Greenhouse Gas Emissions," or in other words, a qualified climate action plan, pursuant to CEQA (*State CEQA Guidelines* Section 15183.5(b)). The adopted CAAP would then be used as the basis for future assessments of consistency with this qualified plan in lieu of a project-specific GHG CEQA analysis for future discretionary projects. A project-specific environmental document that relies on this qualified plan for its cumulative impacts analysis would identify specific GHG emissions reduction measures applicable to the project that are consistent with the proposed CAAP and would describe how the project incorporates these measures. If these measures are not otherwise binding and enforceable, they must be incorporated as mitigation measures or project conditions of approval, or as some other mechanism to ensure implementation.

Each of the CAAP Actions provides details on implementing the GHG reduction strategies including the party or parties responsible for implementation. The CAAP Actions also include the GHG reduction strategies that apply to the City itself. For all future discretionary projects that utilize the CAAP Checklist, the City will determine whether: (a) the project is consistent; (b) the project with conditions would be consistent; (c) the strategy is relevant for new development, but not the subject project; or (d) the project includes one or more replacement strategies that would be equally or more effective in reducing GHG emissions, and such replacement strategy or strategies are not included in the proposed CAAP or required by any other regulation, standard, design criteria, or other existing requirement.

The following discussion addresses the CAAP Checklist for new development. The CAAP Checklist would ensure the City's GHG emissions reduction goals are met for new development and other improvements to existing development. However, improvements to existing development would result in a reduction of GHG emissions compared to existing conditions by the nature of the improvements, and therefore the reductions are not quantified. For new development, certain Tier 1 measures to implement the CAAP Actions were quantified for GHG emissions reductions

based on the *CAAP Checklist: Technical Support Documentation* (Appendix D) to demonstrate consistency with the City's GHG reduction target and specific CAAP Action goals to reduce GHG emissions. Tier 1 measures are mandatory for all future discretionary projects. Other CAAP Actions (Tier 2 measures) are included in the CAAP Checklist and are encouraged to be implemented for all development, as applicable. For each CAAP Checklist item described below, the quantitative basis behind the requirements for new development and new development's "fair share" contribution to the CAAP's total calculated emission reductions at the City-level is provided.<sup>37</sup>

**Zero-Carbon Electricity.** The CAAP Checklist requires that new development use 100 percent carbon-free electricity for all electricity usage on site. This can be achieved through on-site solar photovoltaic (PV) or other on-site renewable energy generation, through enrollment in Southern California Edison's (SCE) Green Rate program (or other available carbon-free electricity service at the time of project application), or some combination of the two.

The CAAP includes the following actions related to zero-carbon electricity for new development:

- **BE-1: Provide access to renewably generated electricity**
- **BE-2: Increase use of solar power**
- **BE-3: Promote community solar and microgrids**

For BE-1, it was assumed that SCE would reduce the carbon intensity of its retail electricity supply by 80 percent by 2030. Although this would occur independent of City and future project applicant actions, it would result in 169,921 MT CO<sub>2</sub>e of emission reductions. The GHG reduction targets also assumed a 10 percent participation rate in SCE's Green Rate program for all residential and commercial accounts in the City. This amounts to 83,332 megawatt-hours (MWh) of carbon-free electricity supplied to residential accounts and 76,394 MWh of carbon-free electricity supplied to commercial accounts, resulting in 19,041 MT CO<sub>2</sub>e of emission reductions. The total citywide emission reduction for BE-1 would be 188,963 MT CO<sub>2</sub>e.

For BE-2, it was assumed that 5 percent of the 91,992 maximum rooftop PV solar coverage potential would install solar PV for a total of 4,600 solar PV systems. The total citywide emission reduction for BE-2 would be 3,881 MT CO<sub>2</sub>e.

Because checklist item #1 requires new development to source 100 percent of its electricity from carbon-free sources, whether from on-site solar (BE-2) or carbon-free electricity from SCE (BE-1), an emission reduction contribution from each of these CAAP Actions for new development separately is not needed, and the reductions from these CAAP Actions were calculated as one combined reduction.

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<sup>37</sup> The term "fair share" generally means that new development is contributing its full amount to help the City achieve its GHG emissions reduction targets as planned for in the CAAP, as stipulated by the California Supreme Court in *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204 (commonly referred to as "Newhall Ranch"), in CARB's 2017 Scoping Plan-Identified VMT Reductions And Relationship To State Climate Goals document, and in *State CEQA Guidelines* Section 15130(a)(3). Refer to Appendix D for more information.

CAAP Actions BE-1 and BE-2 combined would reduce emissions citywide by 192,840 MT CO<sub>2</sub>e. However, when accounting only for the portion of BE-1 associated with enrollment in SCE's Green Rate program (because the reduction in SCE's standard electricity intensity would occur independent of CAAP implementation outside of the City's jurisdiction), the total reduction is 22,923 MT CO<sub>2</sub>e. Based on the assumptions above for new development, the reduction for implementation of checklist item #1 would be 16,288 MT CO<sub>2</sub>e. This represents 71 percent of the total citywide reduction for BE-1 and BE-2. Since electricity consumption associated with new development represents only 8 percent of the City's total electricity consumption in 2030, the 71 percent value meets the "fair share" contribution for new development.

***Trip Reduction Features to Reduce Vehicle Miles Traveled.*** This checklist item requires that new development achieve a 5 percent reduction in vehicle trips and VMT compared to the project without such vehicle trip reduction features. This could be achieved by a number of actions and design features, such as through a Transportation Demand Management (TDM) plan.

This checklist item addresses the following CAAP Actions:

- **T-1: Increase the frequency, speed, connectivity, and safety of transit options**
- **T-2: Expand and improve pedestrian infrastructure citywide**
- **T-3: Increase bikeway infrastructure citywide**
- **T-5: Develop an Electric Vehicle Infrastructure Master Plan**
- **T-7: Update the Transportation Demand Management Ordinance**
- **T-9: Integrate SB 743 planning with the CAAP process**

GHG emission reductions for T-1 assume a citywide reduction in light-duty VMT of 1 percent. This would result from implementation of transit system and ridership improvements.

Transit improvements would influence vehicle travel patterns for both existing and new development, but new development has the opportunity to better utilize transit improvements than much of the built environment in the City. For example, new development can locate jobs and residents near transit, offer transit subsidies, limit available parking, offer parking cash-out, and provide other design features and incentives to maximize transit use by future occupants and customers of the project site.

Because of this, new development would be required to reduce total VMT by 5 percent compared to the project without such vehicle trip reduction features. This could be achieved by a number of actions and design features, such as through a TDM plan.

T-1 would reduce emissions citywide by 5,230 MT CO<sub>2</sub>e. The contribution from new development would therefore represent 19 percent of the total citywide reduction for T-1. Since new service population associated with new development represents only 4 percent of the

City's service population in 2030, the 19 percent meets the "fair share" contribution for new development.

**Recyclable Materials Recycling.** This checklist item requires that new development comply with all State and local requirements for recycling, including the mandatory commercial and multifamily recycling ordinance. It also requires that projects (1) ensure that all project occupants and tenants will separate recyclables from all other refuse and place recyclables in a separate container designated for recycling; (2) provide for the storage, collection, and loading of recyclables in a manner that is convenient for all users of the building; and (3) provide compliance data to the City as required for any current auditing program.

This checklist item addresses the following CAAP Action:

- **W-1: Ensure compliance with state law recycling program requirements for multi-family and commercial property recycling programs**

GHG reductions for W-1 assume a citywide reduction in paper and cardboard landfilling of 75 percent from the multifamily residential and commercial sectors. This represents a reduction in 8,264 tons of paper and cardboard landfilled from the multifamily sector and a reduction in 41,948 tons of paper and cardboard landfilled from the commercial sector. The landfilling emission rate is 0.90 MT CO<sub>2</sub>e per ton, so the total reduction is 45,335 MT CO<sub>2</sub>e.

W-1 would reduce emissions citywide by 45,335 MT CO<sub>2</sub>e. The contribution from new development would therefore represent 4.9 percent of the total citywide reduction for W-1. Since paper and cardboard landfilling associated with new development represents 4.4 percent of the City's total paper and cardboard landfilling in 2030, the 4.9 percent contribution from new development exceeds the citywide average contribution.

**Organics Composting.** This checklist item requires that new development comply with all State and local requirements for composting and organic waste collection, including the mandatory commercial and multifamily organic waste collection ordinance. It also requires that projects (1) ensure that all project occupants and tenants will separate compostables from all other refuse and place compostables in a separate container designated for composting; (2) provide for the storage, collection, and loading of recyclables and solid waste in a manner that is convenient for all users of the building; and (3) provide compliance data to the City as required for any current auditing program.

This checklist item addresses the following CAAP Action:

- **W-2: Develop an organic waste collection program for City-serviced accounts**
- **W-3: Partner With Private Waste Haulers to Expand Organic Waste Collection Community-Wide**

The GHG reductions for W-2 and W-3 assume a citywide reduction in organics (food, park, and wood) landfilling of 75 percent from the multifamily residential and commercial sectors. This

represents a reduction in 3,695 tons of organics landfilled from the multifamily sector and a reduction in 20,937 tons of organics landfilled from the commercial sector. The landfilling emission rate for organics is 0.44 MT CO<sub>2</sub>e per ton for multifamily organics and 0.47 MT CO<sub>2</sub>e per ton for commercial organics, so the total reduction is 39,734 MT CO<sub>2</sub>e.

W-2 and W-3 would reduce emissions citywide by 39,734 MT CO<sub>2</sub>e. The contribution from new development would therefore represent 4.9 percent of the total citywide reduction for W-2 and W-3. Since organics landfilling associated with new development represents 4.4 percent of the City's total organics landfilling in 2030, the 4.9 percent contribution from new development exceeds the citywide average contribution.

In addition, if projects can quantitatively demonstrate that they would achieve a certain efficiency emissions level, and that efficiency emissions level is consistent with the CAAP's overall target for citywide emissions as it applies to new development, then the project would be considered consistent with the CAAP. This efficiency emissions level was calculated to be 1.4 MT CO<sub>2</sub>e per service population (SP). This efficiency emissions level represents the average emissions level per service population that new land use development would have to achieve to be consistent with the CAAP's target level and emission reduction actions. This efficiency emissions level is therefore used as an alternative compliance approach to completing the CAAP Checklist for new projects. This level represents average efficiency emissions and does not mean that all projects would have to achieve these emissions to be consistent with the CAAP, only that if a project achieves this emissions level, it is considered consistent with the CAAP for CEQA GHG tiering purposes. See Appendix D for the derivation of this efficiency level and how it supports the CAAP's emission reduction targets for new development.

Therefore, as demonstrated above, future discretionary projects utilizing the CAAP Checklist for CEQA GHG streamlining would be required to contribute their "fair share" GHG emission reductions for measures that support CAAP Actions and for the CAAP's overall emission reduction target for the City. Thus, the CAAP Checklist and measures to support CAAP Actions would have a beneficial impact on GHG emissions and would not have a significant impact on the environment. No mitigation is required.

**Adaptation Actions.** As described above, in addition to the Tier 1 and Tier 2 measures to support the CAAP Actions related to Building and Energy, Transportation, and Waste that would apply to future development to achieve the GHG emissions target of the CAAP, the proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. The Adaptation Actions provide general strategies that may be needed to lessen climate change impacts based on the CAAP Vulnerability Assessment. While the Adaptation Actions would not be required to meet the City's GHG reduction targets, specific adaptation requirements are listed in the CAAP Checklist for future discretionary projects to incorporate relevant Adaptation Actions, as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP's adaptation component. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessening the impacts of climate change on critical infrastructure and public facilities. The proposed CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact that would be accomplished through implementation of the Adaptation Actions.

There is not sufficient information at this time to analyze potential future physical improvements that may be needed to implement the proposed framework of Adaptation Actions in the CAAP because specific projects and their locations are unknown. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future improvements would be analyzed on a project level pursuant to CEQA and would require further evaluation to demonstrate that implementation of the Adaptation Actions would not have a significant impact on the environment as a result of GHG emissions. As such, impacts would be less than significant, and no mitigation would be required.

**Summary:** The proposed CAAP includes a roadmap for implementing new policies, programs, incentives, requirements, projects, and initiatives designed to reduce GHG emissions and adapt to climate change impacts. The GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that while the LUE would result in lower GHG emissions per service population under future year conditions, the emission rates would exceed the criterion established by the City for purposes of the LUE environmental evaluation. Further, the City would require assistance from additional federal and State programs and regulations to achieve the long-term GHG emissions goal and efficiency threshold. As the proposed CAAP would not alter the development assumptions of the adopted LUE, the proposed project would not alter the significant and unavoidable impact identified in the 2019 Certified Program EIR. However, the proposed CAAP would reduce GHG emissions overall, and therefore not make a considerable contribution to the impact of GHG emissions on the environment. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Therefore, the Safety Element Update would have no impact, and no mitigation is required.

**Threshold 4.4.2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?**

GHG emissions impacts are evaluated by assessing whether the proposed CAAP conflicts with applicable GHG reduction strategies and local actions approved or adopted by CARB, SCAG, and the City. The 2017 Scoping Plan, SCAG's 2020–2045 RTP/SCS, the City General Plan policies and goals, and the City's *Sustainable City Action Plan* all apply to the project and all are intended to reduce GHG emissions to meet the statewide targets set forth in AB 32, as amended by SB 32. Thus, the significance of the proposed CAAP's GHG emissions is evaluated consistent with *State CEQA Guidelines* Section 15064.4(b)(2) by considering whether the proposed CAAP would conflict with applicable plans, policies, regulations adopted for the purpose of reducing GHG emissions, including CARB's 2017 Climate Change Scoping Plan, SB 37 and E-3-05, SCAG's 2020–2045 RTP/SCS, and the CALGreen Code and City Green Building Codes.

**CAAP: Less Than Significant Impact.** Applicable plans adopted for the purpose of reducing GHG emissions include CARB’s 2017 Scoping Plan, SCAG’s 2020–2045 RTP/SCS, and the City’s Sustainable City Action Plan. A consistency analysis with these plans for the proposed project is presented below.

**CARB 2017 Scoping Plan.** CARB’s 2017 Scoping Plan is applicable to State agencies but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require the City to adopt policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the State agencies outlined in the 2017 Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that would affect a local jurisdiction’s emissions inventory from the top down. Statewide strategies to reduce GHG emissions include the low carbon fuel standards and changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley California Advanced Clean Cars program). Although measures in the 2017 Scoping Plan apply to State agencies and not the proposed project, the project’s GHG emissions would be reduced by compliance with statewide measures that have been adopted since AB 32 and SB 32 were adopted. Therefore, the proposed project was analyzed for consistency with the goals of AB 32, the 2017 Scoping Plan, and EO B-30-15, SB 32, and AB 197. Refer to Section 4.4.3, Regulatory Framework, above for a detailed discussion of each regulation.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California’s new and existing inventory of buildings. The Tier 1 measures for the Buildings and Energy sector requires increased access to and incentives for clean electricity (BE-1 and BE-5) and the increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures that would be consistent with the energy efficiency measures of the 2017 Scoping Plan.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. The CAAP includes an action to perform municipal energy and water audits (BE-6), and the Adaptation Actions include Drought Actions that include continuation of programs to meet and exceed State water use efficiency targets as well as new actions to increase the supply and use of recycled water, expand green infrastructure and streets, and increase the capture and storage of rainfall. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures as it strives to increase these efficiencies.

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025. Specific regional and statewide emissions targets for transportation emissions would not be the responsibility of the proposed project to implement, though their implementation would directly affect the City’s GHG emissions

and would significantly contribute toward the City's ability to achieve its overall emission reduction targets in combination with the actions put forward in the proposed CAAP.<sup>38</sup> In addition, Tier 1 measures for the Transportation sector include trip reduction features to reduce VMT; incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure; and compliance with the City's TDM measures and TIA Guidelines. Tier 2 measures for the Transportation sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service (T-1); providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5); complying with City TDM requirements (T-7); and complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to SB 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Similar to the Building and Energy CAAP Actions, future projects that include the development of new transit facilities and increased residential, commercial, and mixed-use development would be evaluated for transit service at the time such discretionary projects are submitted for review and approval. Other Tier 2 measures to support the CAAP Actions for Transportation included on the CAAP Checklist are designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establish bus-only lanes, and expand electric-vehicle charging infrastructure to further reduce emissions. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

Consistent with SB 32, the proposed CAAP sets a GHG target for 2030 of 3.04 MT CO<sub>2</sub>e/SP). Implementation of the proposed CAAP is anticipated to enable the City to exceed its reduction target by more than 170,000 MT CO<sub>2</sub>e in 2030. The proposed CAAP would meet the GHG emissions reduction targets for 2030, which align with the adopted targets for the 2017 Scoping Plan. Thus, the proposed CAAP does not conflict with achieving the SB 32 target. The proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in AB 32, the AB 32 Scoping Plan, and EO B-30-15, SB 32, and AB 197 and would be consistent with applicable State plans and programs designed to reduce GHG emissions. Therefore, impacts are considered less than significant, and no mitigation is required.

**S-3-05.** Through implementation of the proposed CAAP alone, the City would not reach its goal of net carbon neutrality by 2045. Although the proposed CAAP would not meet the target of carbon neutrality by 2045, carbon neutrality is not a significance threshold for the purposes of this SEIR because carbon neutrality is not an adopted plan, policy, or regulation of the State that is applicable to the City. The 2017 Scoping Plan explicitly acknowledges and states that the inability to achieve carbon neutrality or net zero GHG emissions does not imply that a project contributes to a significant impact under CEQA (CARB 2017a):<sup>39</sup>

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<sup>38</sup> Specifically, implementation of the Pavley standards was included in the CAAP's BAU emissions forecasts.

<sup>39</sup> CARB. 2017. *California's 2017 Climate Change Scoping Plan*. November 2017. Appendix G. Website: [https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf) (accessed December 2021).

*Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. Lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with this Scoping Plan, the State's long-term GHG goals, and climate change science.*

Because the proposed CAAP would help the City meet its GHG emissions reduction targets for 2030, which align with the adopted targets for the 2017 Scoping Plan, the proposed CAAP would not conflict with making progress toward achieving the 2050 reductions included in EO S-3-05. The proposed CAAP makes progress towards carbon neutrality; however, its inability to achieve carbon neutrality by 2045 does not conflict with the 2017 Scoping Plan, and thus does not render the impact significant under CEQA.

**SCAG's Regional Transportation Plan/Sustainable Communities Strategy.** SCAG's RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The 2020–2045 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as forecast development that is generally consistent with regional-level general plan data. The forecasted development pattern, when integrated with the financially constrained transportation investments identified in the 2020–2045 RTP/SCS, would reach the regional target of reducing GHG emissions from autos and light-duty trucks by 19 percent by 2035 (compared to 2005 levels). The 2020–2045 RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the 2020–2045 RTP/SCS, but provides incentives for consistency for governments and developers. The CAAP is designed to help implement the land use strategies of the Long Beach LUE, which is based on land use strategies of the RTP/SCS.

As described above, adoption of the proposed CAAP would not environmentally clear new development, but allows for CEQA GHG streamlining for new development by including measures to support the CAAP Actions on the CAAP Checklist to ensure that future discretionary projects reduce GHG emissions and help achieve the City's overall GHG emissions goals. Other CAAP Actions may not be subject to discretionary actions but still serve to achieve these goals. As described above, CAAP Actions for Transportation would improve transit service (T-1); provide bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5); integrate SB 743 to address VMT (T-7 and T-9); increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). These CAAP Actions are consistent with the goals of SCAG's RTP/SCS to provide residential and employment opportunities near transit. Therefore, the proposed CAAP Actions would be consistent with the goals of SCAG's RTP/SCS.

Implementing SCAG's RTP/SCS would greatly reduce regional GHG emissions from transportation, helping to achieve statewide emissions reduction targets. As stated above, the proposed project would in no way conflict with the stated goals of the RTP/SCS; therefore, the proposed project would not interfere with SCAG's ability to achieve the region's GHG reduction target of 19 percent

below 2005 per capita emissions levels by 2035, and it can be assumed that regional mobile emissions will decrease in line with the goals of the RTP/SCS.

Based on the nature of the proposed project, it is anticipated that implementation of the proposed CAAP would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS. Therefore, the proposed project would not conflict with an adopted plan, policy, or regulation pertaining to GHG emissions, and impacts are considered less than significant. No mitigation is required.

**City of Long Beach Sustainable City Action Plan.** The *Sustainable City Action Plan* is a City-adopted plan to guide the City in becoming more sustainable. The plan identifies a wide range of goals and implementation actions to conserve energy and water, reduce solid waste, address global warming, tailor urban design, protect natural habitats, improve transportation options, and reduce risks to human health. Specific goals related to GHGs include increasing the use of renewable energy in Long Beach and reducing the City's overall electric load by 10 percent. Other goals include reducing single-occupancy vehicle trips by 10 percent and advancing higher density mixed-use neighborhoods that are bicycle and pedestrian friendly. The proposed CAAP includes various policies that are and would be consistent with these goals and initiatives of the *Sustainable City Action Plan* to reduce solid waste, improve transportation, and address climate change. Therefore, the proposed project would not conflict with this adopted plan, and impacts are considered less than significant. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs. Therefore, the Safety Element Update would have no impact, and no mitigation is required.

#### 4.4.6 Level of Significance Prior to Mitigation

The proposed project would result in less than significant impacts related to GHG emissions, and no mitigation is required.

#### 4.4.7 Regulatory Compliance Measures and Mitigation Measures

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action, does not include any project design features related to GHG emissions.

#### 4.4.8 Level of Significance after Mitigation

There would be no significant unavoidable adverse impacts related to GHG emissions, and no mitigation is required.

#### 4.4.9 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and potential future projects within the cumulative impact area for GHG emissions. The cumulative study area analyzed for potential GHG emissions impacts is the South Coast Air Basin.

The proposed project does not include a project-level analysis for future physical improvements or development. The proposed project would be implemented through the CAAP Checklist (Appendix D) for future discretionary projects to allow for CEQA GHG streamlining as well as other non-discretionary actions to implement CAAP Actions. Given that the proposed CAAP would reduce GHG emissions from future projects proposed to facilitate proposed CAAP Actions, the proposed project would be consistent with applicable reduction plans and policies, and given that GHG emissions impacts are cumulative in nature, the proposed project's incremental contribution to significant cumulative GHG emissions would be less than cumulatively considerable, and the proposed CAAP's cumulative impact would be less than significant. No mitigation is required.

The proposed project also includes text changes to the Safety Element to incorporate recognition of climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in cumulatively significant GHG impacts. Therefore, the Safety Element Update would not cumulatively contribute to GHG impacts. No mitigation is required.

## 4.5 LAND USE AND PLANNING

This section of the Draft Subsequent Environmental Impact Report (SEIR) analyzes the land use impacts associated with the implementation of the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update Project (proposed project). Information presented in this section is based on information provided in the following documents: the City of Long Beach’s (City) existing General Plan (as amended), the City’s adopted Zoning Code (Titles 21 and 22), and associated Zoning Map, the City’s Local Coastal Program (LCP) (1980), the Port of Long Beach Port Master Plan (PMP) (1978), the Los Angeles County Airport Land Use Plan (ALUP) (1991), the Orange County Airport Environs Land Use Plan (AELUP) for the Joint Forces Training Base (JFTB) at Los Alamitos (1975), the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal), the 2008 Regional Comprehensive Plan (2008 RCP), and the California Coastal Act of 1976 (CCA) (Public Resources Code [PRC], Division 20). As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element Update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Therefore, the analysis in this SEIR focuses on the potential impacts from the measures included in the CAAP Checklist required for future discretionary projects, as well as the potential programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.5.1 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft SEIR. Two comment letters included comments related to land use and planning.

The letter from the Los Angeles County Sanitation Districts (LACSD) received on September 22, 2021, suggested that the Draft SEIR provide a discussion of the proposed project’s consistency with the Southern California Association of Governments (SCAG) regional growth forecasts, as this provides the basis for the capacity of facilities operated by LACSD. An analysis of the project’s consistency with the SCAG growth forecasts is provided in Section 4.5.6 below.

The letter from SCAG received on September 24, 2021, suggested that the Draft SEIR provide a discussion of the proposed project’s consistency with the goals of the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal. An analysis of the project’s consistency with Connect SoCal is provided in Section 4.5.6 below.

### 4.5.2 Existing Environmental Setting

#### 4.5.2.1 Existing Planning Area

The CAAP and Safety Element Update address all land within the City’s jurisdictional limits and corresponding Sphere of Influence. Throughout this Draft SEIR, these areas are referred to as the “planning area.”

The planning area encompasses 50 square miles (approximately 33,000 acres) within the limits of the City of Long Beach (excluding the City of Signal Hill, which is completely surrounded by the City of Long Beach) in the southern region of Los Angeles County. The planning area is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton, Paramount, and Bellflower; and on the east by the Cities of Lakewood, Hawaiian Gardens, Cypress, Los Alamitos, and Seal Beach. Additionally, the City of Signal Hill is centrally located within the planning area and is completely surrounded by development in the City of Long Beach.

#### 4.5.2.2 Existing Land Uses

The adopted General Plan Land Use Element (LUE) divides the City into nine distinct Community Plan Areas, comprised of the following: (1) North Long Beach; (2) Bixby Knolls; (3) Westside and Wrigley; (4) Eastside; (5) Central; (6) Traffic Circle; (7) Downtown; (8) Midshore; and (9) Southeast.

In addition to establishing Community Plan Areas, the adopted LUE introduces the concept of “PlaceTypes,” which replaces the previous approach of segregating property within the City through traditional land use designations and zoning classifications. The adopted PlaceTypes would divide the City into distinct neighborhoods, thus allowing for greater flexibility and a mix of compatible land uses within these areas. As the proposed project would apply to the entire City, the planning area for the project includes all of the adopted PlaceTypes. The adopted LUE established the following 14 primary PlaceTypes:

1. Open Space
2. Founding and Contemporary Neighborhood
- 3–4. Multi-Family Residential—Low and Moderate
- 5–6. Neighborhood-Serving Centers and Corridors—Low and Moderate
- 7–8. Transit-Oriented Development – Low and Moderate
9. Community Commercial
10. Industrial
11. Neo-Industrial
12. Regional-Serving Facility
13. Downtown
14. Waterfront

Table 4.5.A, summarizes the residential densities, non-residential intensities, and maximum building heights allowed within the adopted PlaceTypes.

#### 4.5.3 Regulatory Setting

##### 4.5.3.1 Federal Policies and Regulations

There are no federal land use policies or regulations that are applicable to the proposed project with respect to land use regulation.

**Table 4.5.A: PlaceType Densities, Intensities, and Heights**

PlaceType	Residential Density (du/acre)	Non-Residential Intensity (FAR) <sup>1</sup>	Height
Open Space	N/A	See Open Space and Recreation Element of the General Plan	2 stories
Founding and Contemporary Neighborhood <sup>2</sup>	7–18	0.25 to 0.50	2 stories (varies by area)
Multi-Family Residential:			
Low	Up to 29 du/ac based on lot size	0.25 to 0.50	4 stories
Moderate	Up to 62 du/ac based on lot size	0.50 to 0.75	6 stories
Neighborhood-Serving Centers and Corridors:			
Low	Up to 44 du/ac based on lot size	0.50 to 1.00	4 stories
Moderate	Up to 54 du/ac based on lot size	1.00 to 1.50	7 stories
Transit-Oriented Development:			
Low	N/A	1.50 to 3.00	5 stories
Moderate	N/A	2.00 to 4.00	10 stories
Community Commercial	N/A	2.00 to 4.00	7 stories
Industrial	N/A	N/A	65 ft
Neo-Industrial	Up to 36 du/ac based on lot size	0.50 to 1.00	65 ft
Regional-Serving Facility	N/A	N/A	PlaceType Height Limitations
Downtown (See Downtown Plan)	Regulated through FAR and height	Regulated through FAR and height	See Downtown Plan
Waterfront	See descriptions (vary by area)	See descriptions (vary by area)	PlaceType Height Limitations (varies by area)

Source: Long Beach General Plan Land Use Element (2020).

<sup>1</sup> FAR refers to the floor area of all principal and accessory buildings on a site as a ratio of the total size of the land on which it is developed.

<sup>2</sup> Height may be increased to 3 stories consistent with the existing land use pattern.

du/ac = dwelling unit per acre

du/lot = dwelling unit per lot

FAR = floor-to-area ratio

ft = foot/feet

N/A = not applicable

#### 4.5.3.2 State Policies and Regulations

**California Government Code Section 65300.** California planning law requires every city and county in California to adopt a “comprehensive, long-term general plan for physical development.” State law also requires the General Plan to identify goals and policies for the planning area as they relate to land use and development, provide a framework within which local decision-makers can make land use decisions, provide the public with an opportunity to participate in the decision-making process, and inform the community of the regulations guiding environmental protection and land use development decisions within the City.

**California Government Code Section 65302.** State law also requires a General Plan to address seven mandatory topics, which include land use, circulation, housing, conservation, open space, noise, and safety, but allows for flexibility in how these topics are addressed within the General Plan. In addition, cities and counties in the San Joaquin Air Pollution Control District must also address air quality in their general plans, while cities and counties that have identified disadvantaged communities must also address environmental justice in their general plans. While these elements are required, State law allows for local jurisdictions to adopt “optional” elements beyond those required by law. However, once adopted, these “optional” elements have the same force and effect as policies related to those elements required by State law.

The current Long Beach General Plan includes elements that address each of the eight mandatory issue areas required by State law for the City but goes beyond these required elements by adopting the Historic Preservation Element (2010), the Air Quality Element (1996), the Seismic Safety Element (1988), and the Urban Design Element (2019). The proposed project includes amendments to and the combining of the existing Public Safety Element (2002) and the existing Seismic Safety Element (1988) to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency, consistent with the climate adaptation and resiliency considerations and strategies included in the proposed CAAP.

**California Coastal Act.** The California Coastal Act (CCA; Public Resources Code 30000) of 1976 was created to (1) protect, maintain, and, where feasible, enhance and restore the overall quality of the California Coastal Zone environment and its natural and humanmade resources; (2) ensure orderly, balanced utilization and conservation of Coastal Zone resources, taking into account social and economic needs; (3) maximize public access to and along the coast and maximize public recreational opportunities in the Coastal Zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners; (4) ensure priority for coastal-dependent development over other development on the coast; and (5) encourage State and local cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses in the Coastal Zone.

The project includes the entire area within the City’s limits, including the Coastal Zone, which is regulated by the California Coastal Commission (CCC) under the CCA. Pursuant to the CCA, the CCC has certified the City’s LCP (see below for further details), giving the City the primary authority to regulate development and to issue Coastal Development Permits (CDPs) for projects requiring discretionary approval within its jurisdiction that are consistent with the LCP. While the City is the responsible agency with the authority to issue CDPs for projects located in the Coastal Zone, the CCC retains jurisdiction of those project activities occurring on tidelands and submerged lands. Implementation of the proposed project is considered a planning policy action and would not result in the physical development of any project that would require a CDP from either the City or the CCC.

#### 4.5.3.3 Local and Regional Plans and Policies

The City is covered by several planning documents and programs that have varying degrees of regulation. The City has preeminent authority over deciding the land uses within the City. The adopted planning documents regulating land use are the City’s General Plan, the Zoning Code, and various specific plans.

Applicable regional, local, and conservation land use policies and guidelines from each of these planning documents are described below. In addition, pursuant to *State CEQA Guidelines* Section 15125 (d), the proposed project's consistency with other applicable regional plans and programs, such as the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP), is addressed in the appropriate topical sections of this Draft SEIR. The following paragraphs explain the regulations, plans, and policies applicable to the proposed project.

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

On September 3, 2020, SCAG adopted Connect SoCal, the 2020–2045 RTP/SCS. The 2020–2045 RTP/SCS is a long-range planning document that provides a common foundation for regional and local planning, policymaking, and infrastructure goals in the SCAG region. The core vision of Connect SoCal is to build upon and expand land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal includes new initiatives at the intersection of land use, transportation, and technology to reach greenhouse gas reduction goals for the region.

The 2020–2045 RTP/SCS establishes a number of initiatives aimed at improving the regional transit system and reducing automobile reliance in the SCAG planning area. Examples of these initiatives include fostering housing construction in transit-rich areas by deregulating parking, promoting housing supportive infrastructure, and supporting innovative self-help financing districts; encouraging regional coordination to incentivize shared mobility, as mobility services and new technologies gain mode share; and ensuring the safe and fluid movement of goods while committing to the broad deployment of zero- and near-zero emission technologies. Connect SoCal is included in the analysis below to determine whether the proposed project would be implemented in a manner consistent with the goals of this plan related to reducing greenhouse gases, improving mobility, and promoting sustainable growth in the region.

**Regional Comprehensive Plan.** In 2008, SCAG adopted the Regional Comprehensive Plan (RCP) for the purpose of providing a comprehensive strategic plan for defining and solving housing, traffic, water, air quality, and other regional challenges. The 2008 RCP has two primary objectives in implementing this strategic plan: (1) integrating transportation, land use, and air quality planning approaches, and (2) outlining key roles for public and private sector stakeholders to implement reasonable policies regarding transportation, land use, and air quality approaches. While the 2008 RCP outlines several policies to inform local decision-makers within the SCAG region with respect to policy and planning decisions, these policies are considered recommendations and are not mandated by law.

With respect to land use policy, the 2008 RCP includes a Land Use and Housing chapter that aims to link land use and transportation planning decisions to the projected population and economic growth in the SCAG region. Specifically, the Land Use and Housing chapter of the 2008 RCP promotes sustainable planning for land use and housing in the SCAG region by maximizing the efficiency of the existing circulation network, providing a greater variety in housing types, promoting a diverse and growing economy, and protecting the existing natural environment. The 2008 RCP is included in the analysis below to determine if the proposed project is consistent with the goals of this plan related to regional growth and environmental protection.

**Los Angeles County Airport Land Use Plan.** Consistent with requirements established by the Federal Aviation Administration (FAA), the County of Los Angeles adopted the Los Angeles County Airport Land Use Plan (ALUP) on December 19, 1991. The overall intent of this plan is to protect public health, safety, and welfare in the County of Los Angeles by ensuring the orderly expansion of airports and the adoption of land use patterns and strategies that minimize the public's exposure to excessive noise and safety hazards around public use airports. The Los Angeles ALUP establishes regulations for over 10 airports in the region, including the Long Beach Airport.

The Long Beach Airport is centrally located within the planning area and is within the jurisdiction of the Los Angeles County Airport Land Use Commission (ALUC) and is subject to regulations established in the Los Angeles County ALUP.

The Los Angeles County ALUP outlines compatibility concerns related to noise and safety impacts to surrounding communities that could adversely affect the viability of the airport. Specifically, the Los Angeles County ALUP aims to protect the health, safety, and welfare of residents within the County through the establishment of Runway Protection Zones (easements for which land uses adjacent to the airport need to be controlled) and noise regulations (established in the Airport Noise Compatibility Ordinance).

**Orange County Airport Environs Land Use Plan for the Joint Forces Training Base-Los Alamitos.** The Los Alamitos Joint Forces Training Base (JFTB) is situated in the City of Los Alamitos and contains the Army Aviation Support Facility and the 1<sup>st</sup> Battalion of the 140<sup>th</sup> Aviation Regiment of the California Army National Guard. The facility has two runways that are aligned northeast to southwest.

The Los Alamitos JFTB is within the jurisdiction of the Orange County ALUC, which is required to prepare and adopt an airport environs land use plan (AELUP) for each of the airports within its jurisdiction. As such, the Orange County AELUP for the Los Alamitos JFTB was adopted in 1975 and has since been revised numerous times, with the last revision occurring in 2016.

The Orange County AELUP for the Los Alamitos JFTB aims to safeguard the general welfare of residents within the vicinity of the airport and to ensure the continued operation of the airport. Specifically, the plan seeks to protect the public from adverse aircraft noise and safety impacts. The Orange County AELUP for the Los Alamitos JFTB aims to achieve these goals by regulating land use patterns within the "airport influence area." Specifically, airport influence areas are defined as areas where current or future airport-related noise, overflight, safety, and/or airspace protection may

significantly impact land uses or necessitate land use restrictions. The southeastern boundary of the City of Long Beach is located within a portion of the Los Alamitos JFTB airport influence area, and as such, is subject to regulations outlined in the Orange County AELUP for the Los Alamitos JFTB.

#### 4.5.3.4 City of Long Beach General Plan

The City's General Plan establishes goals, policies, and strategies that combine to serve as a "blueprint" directing future growth in the City. The current General Plan consists of the Historic Preservation, Open Space and Recreation, Housing, Air Quality, Mobility, Land Use, Seismic Safety, Noise, Public Safety, Conservation, Urban Design, and Mobility Elements. The Land Use Element (LUE) and Urban Design Element (UDE) (2019) are the most recent General Plan Elements to be adopted, as part of the City's larger effort to update older elements of its General Plan. The proposed CAAP is being prepared as a requirement of Mitigation Measure GHG-1 of the City's General Plan Land Use and Urban Design Elements EIR, certified in 2019 (referred to hereafter as the 2019 Certified Program EIR).

**Land Use Element.** The City's Land Use Element (2019) formulated the following broad-range goals guiding land use in the City: manage growth, encourage economic development, revitalize the Downtown area, allow for the construction of new housing, encourage the development of affordable housing, emphasize strong neighborhoods, maintain existing public facilities, and maintain and/or improve the circulation system.

The 2019 Land Use Element (LUE) introduced the concept of "PlaceTypes," which replaced the prior approach of segregating property within the City through traditional land use designations and zoning classifications. The LUE establishes 14 primary PlaceTypes that divide the City into distinct neighborhoods, thus allowing for greater flexibility and a mix of compatible land uses within these areas. Each PlaceType is defined by unique land use, form, and character-defining goals, policies, and implementation strategies tailored specifically to the particular application of that PlaceType within the City. The following goals and policies related to land uses and planning presented in the adopted LUE would apply to the proposed project:

**STRATEGY No. 1:** Support sustainable urban development patterns.

- **LU Policy 1-1:** Promote sustainable development patterns and development intensities that use land efficiently and accommodate and encourage walking.
- **LU Policy 1-2:** Support high-density residential, mixed-use and transit-oriented development within the downtown, along transit corridors, near transit stations and at neighborhood hubs.
- **LU Policy 1-3:** Require sustainable design strategies to be integrated into public and private development projects.
- **LU Policy 1-4:** Require electric vehicle charging stations to be installed in new commercial, industrial, institutional and multiple-family residential development projects. Require that all parking for single-unit and two-unit residential development projects be capable of supporting future electric vehicle supply equipment.

- **LU Policy 1-5:** Encourage resources and processes that support sustainable development for adaptive reuse projects, as well as appropriate infill projects.
- **LU Policy 1-6:** Require that new building construction incorporate solar panels, vegetated surface, high albedo surface, and/or similar roof structures to reduce net energy usage and reduce the heat island effect.
- **LU Policy 1-8:** Include and recognize the contribution of natural lands in the City's carbon inventory and climate actions. Require scientific analysis of carbon sequestration losses or gains with all land conversion proposals that impact or convert natural lands and wetlands.

**STRATEGY No. 2:** Promote efficient management of energy resources to reduce greenhouse gas emissions and the impacts of climate change by employing a full range of feasible means to meet climate goals.

- **LU Policy 2-1:** Promote the establishment of local green energy generation projects along with the infrastructure to support such projects.
- **LU Policy 2-2:** Ensure that long-range planning processes consider impacts of sea level rise and propose mitigation measures.

**STRATEGY No. 4:** Attract and invest in green and innovative industries to expand creative employment opportunities.

- **LU Policy 4-1:** Provide a Land Use Plan that allows a place for green energy development and green businesses.
- **LU Policy 4-2:** Promote the transition of some heavy industrial and manufacturing sites to creative green and sustainable industries.

**STRATEGY No. 7:** Implement the major areas of change identified in this Land Use Plan (Map LU 20).

- **LU Policy 7-3:** Allow heavy industry uses, as well as oil and gas facilities, to transition to green industry where feasible and desired.
- **LU Policy 7-6:** Promote transit-oriented development around passenger rail stations and along major transit corridors.
- **LU Policy 7-7:** Continue to develop the Downtown into a city center that provides compact development, accommodates new growth, creates a walkable urban environment, allows for diversified businesses and is easily accessible to surrounding neighborhoods and regional facilities.

**STRATEGY No. 9:** Protect and enhance established neighborhoods.

- **LU Policy 9-1:** Protect neighborhoods from the encroachment of incompatible activities or land uses that may have negative impacts on residential living environments.
- **LU Policy 9-2:** Enhance and improve neighborhoods through maintenance strategies and code enforcement.

**STRATEGY No. 11:** Create healthy and sustainable neighborhoods.

- **LU Policy 11-2:** Provide for a wide variety of creative, affordable, sustainable land use solutions to help resolve air, soil and water pollution, energy consumption, and resource depletion issues.

**STRATEGY No. 16:** Prevent and reduce disproportionate environmental burdens affecting low-income and minority populations.

- **LU Policy 16-7:** Address Environmental Justice through public infrastructure investments in disadvantaged communities. These investments should address compound and unique health risks by reducing and limiting air pollutant exposure, providing health care infrastructure, using clean and renewable energy where available and improving active living and transportation options, as well as access to safe recreation, food and housing options

**STRATEGY No. 17:** Improve public infrastructure to serve new development, established neighborhoods, commercial centers, industry, and regional-serving facilities.

- **LU Policy 17-1:** Coordinate land use development and infrastructure investment.
- **LU Policy 17-2:** Maintain adequate and sustainable infrastructure systems to protect the health and safety of all Long Beach residents, businesses, institutions, and regional-serving facilities.
- **LU Policy 17-3:** Prioritize improvements in underserved neighborhoods to remedy deficiencies in infrastructure, public facilities, and services.
- **LU Policy 17-4:** Continue to make improvements that advance technology and innovation to enhance City services, promote greater civic engagement, and improve efficiencies.
- **LU Policy 17-5:** Serve a wide range of community needs by providing increased access to community uses at schools (i.e., health clinics, counseling centers, recreational and other social services) outside of school hours, starting in neighborhoods with lack of sufficient public facilities, infrastructure, and services.

**STRATEGY No. 18:** Increase open space in urban areas.

- **LU Policy 18-4:** Increase the number of trees, first prioritizing areas identified as tree deficient, to provide the maximum benefits of improved air quality, increased carbon dioxide sequestration, reduced stormwater runoff, and mitigated urban heat island effect.

**STRATEGY No. 20:** Preserve, restore, and protect water bodies, natural areas, and wildlife habitats.

- **LU Policy 20-8:** Manage and restore land to increase carbon storage and minimize greenhouse gas emissions in a sustainable manner by increasing the City's carbon sinks over time.

**STRATEGY No. 21:** Reconnect with nature's systems and natural processes.

- **LU Policy 21-6:** Promote green infrastructure systems to preserve natural resources and to clean and filter out toxins from water bodies

**Urban Design Element.** The City's Urban Design Element (2019) provides an urban framework that addresses the varying aesthetic characteristics associated with the historic districts, residential neighborhoods, auto-oriented commercial centers, urbanized centers, and corridors located throughout the City. This framework also assures that there are many walkable and bikeable neighborhoods.

The Urban Design Element (UDE) defines the physical aspects of the urban environment. Specifically, the UDE enhances the City's PlaceTypes established in the Land Use Element (2019) by creating great places; improving the urban fabric, and public spaces; and defining edges, thoroughfares, and corridors. The following goals and policies related to land uses and planning presented in the adopted UDE would apply to the proposed project:

**STRATEGY No. 1:** Improve function and connectivity within neighborhoods and districts.

- **Policy UD 1-6:** Identify streets that can be reconfigured to accommodate a variety of improvements, such as wider sidewalks with trees, bike paths, dedicated transit lanes, and landscape medians or curb extensions that make the streets more attractive and usable, consistent with Complete Streets principles.
- **Policy UD 1-7:** Employ timeless and durable materials in streetscape-designed amenities.

**STRATEGY No. 5:** Integrate healthy living and sustainable design practices and opportunities throughout Long Beach.

- **Policy UD 5-4:** Preserve, rehabilitate, and integrate existing buildings into new development projects wherever feasible to encourage adaptive reuse, reduce waste, and maintain local character.

**STRATEGY No. 13:** Create and maintain complete neighborhoods.

- **Policy UD 13-4:** Implement streetscape improvements along the major cross-town corridors using a comprehensive approach to the corridor's sidewalks, landscaping, lighting, and amenities that reflect the individual neighborhoods along the corridor.

**STRATEGY No. 14:** Building types and forms should contribute to the PlaceType they are sited within and should address potential conflicts between neighboring PlaceTypes by implementing buffering measures and thoughtful design patterns.

- **Policy UD 14-3:** Allow new development projects to respond to their particular context and experiment with alternative development patterns while complementing their PlaceTypes.

**STRATEGY No. 15:** Consider vacant parcels as infill opportunities.

- **Policy UD 15-2:** Promote infill projects that support the designated PlaceType and be appropriate in their use, scale, compactness of development, and design character with adjacent sites and nearby existing development.

**STRATEGY No. 20:** Protect and enhance established Multi-Family Residential - Low and Moderate PlaceTypes.

- **Policy UD 20-3:** Encourage the design of multifamily buildings along major corridors and near transit areas to increase density over existing conditions to encourage investment and development of infill sites.

**STRATEGY No. 21:** Protect and enhance established Neighborhood-Serving Centers and Corridors – Low and Moderate PlaceTypes.

- **Policy UD 21-1:** Promote the concentration of mixed uses and higher building intensity nearest the center of the PlaceType and adjacent to transit stations, with housing or lower scale buildings at the periphery.
- **Policy UD 21-3:** Promote pedestrian activity by establishing well-designed streetscapes, active ground floor uses, and tree-canopied sidewalks that are unique to the individual neighborhood and transit stations.

**STRATEGY No. 22:** Protect and enhance established Transit-Oriented Development – Low and Moderate PlaceTypes.

- **Policy UD 22-1:** Encourage the massing of buildings and setbacks behind the Long Beach Boulevard light rail corridor to transition from moderate to low, in order to gracefully handle the transition from more intense to less intense development.
- **Policy UD 22-2:** Establish tree-lined sidewalks to provide a shade canopy and human-scale along primary corridors and adjacent to transit centers.
- **Policy UD 22-3:** Provide a mix of uses either within a single development or within a 1/4-mile radius of the PlaceType area, and centered around a transit station. The highest density of development should occur nearest the station.
- **Policy UD 22-4:** Incorporate amenities such as benches, bike racks, banners, way-finding signage and public art within Transit-Oriented Development to foster a pleasant experience and convey the unique identity of each district.

- **Policy UD 22-6:** Require a well-designed interface between pedestrians, bicyclists, and transit users. Bicycle facilities and pedestrian amenities, including enhanced crosswalks, mid-block crossings, curb extensions, paseos, and public plazas, should be integrated throughout the PlaceType.

**STRATEGY No. 23:** Protect and enhance established Community Commercial PlaceTypes.

- **Policy UD 23-2:** Develop single-family attached units or multifamily residential uses as a transition in scale between the automobile-oriented corridor and the adjacent neighborhood.
- **Policy UD 23-3:** Encourage new developments to provide alley and streetscape improvements that enhance the experience of the pedestrian and transit rider, such as low walls screening parking lots, substantial landscaping, street trees, and pedestrian-scaled lighting.

**STRATEGY No. 24:** Protect and enhance established Industrial PlaceTypes.

- **Policy UD 24-6:** Provide heavily landscaped edges and screening along industrial corridors to make them more attractive to pedestrians, bicyclists, and transit users.
- **Policy UD 24-7:** Establish parkways, planted medians, and street trees along the sidewalk to increase permeable surface areas.

**STRATEGY No. 25:** Protect and enhance established Neo-Industrial PlaceTypes.

- **Policy UD 25-8:** Integrate sustainable design strategies into all development or redevelopment, including new exterior materials or design features.

**STRATEGY No. 26:** Protect and enhance established Regional-Serving Facility PlaceTypes.

- **Policy UD 23-3:** Incorporate shade trees and pedestrian amenities along main streets, with pedestrian entrances oriented toward the sidewalk, not just internalized to the campus or facility.

**STRATEGY No. 27:** Protect and enhance established Downtown PlaceTypes.

- **Policy UD 27-3:** Establish sustainable streetscape design as a norm for this PlaceType.

**STRATEGY No. 28:** Protect and enhance established Waterfront PlaceTypes.

- **Policy UD 28-2:** Encourage mixed-uses and greater building intensity to be located nearest the center within this PlaceType, with housing and/or lower-scale buildings on the periphery.

**STRATEGY No. 31:** Provide a variety of public spaces throughout the City.

- **Policy UD 31-4:** Promote the integration of adequate seating, bike racks, water features, public art, and other pedestrian amenities within plazas and public spaces.

**STRATEGY No. 35:** Building design and form shall define street walls that contribute to great streets and vibrant pedestrian environments.

- **Policy UD 35-4:** Emphasize pedestrian orientation in site and building design to define the public realm and activate sidewalks and pedestrian paths.

**STRATEGY No. 38:** Enhance the functionality within each PlaceType by improving the character and functionality of each Street Type.

- **Policy UD 38-2:** Ensure that urban and downtown areas with high volumes of pedestrian travel have enlarged walk zones, street trees, and maximum use of street furnishings and lighting.
- **Policy UD 38-9:** Provide a street furniture and landscape zone adjacent to the curb for parkways, tree grates, bicycle parking, lighting, benches, newspaper kiosks, utility poles, potted plants, benches, transit shelters, and other pedestrian amenities.

**STRATEGY No. 39:** Beautify the City with trees and landscaping while being conscious of water resources and utilizing sustainable practices.

- **Policy UD 39-1:** Accommodate large canopy street trees that contribute to the City's urban forest, enhance street character and neighborhood identity, and provide shade for pedestrians and parked cars and bikes.

**STRATEGY No. 40:** Design parking lots, structures, driveways, and access points to promote walkability, reduced trips, and promote sustainability.

- **Policy UD 40-1:** Minimize the visual impact of parking structures by encouraging the first floor to be wrapped with pedestrian-friendly uses and by urban design and landscaping features along pedestrian-oriented street frontages.
- **Policy UD 40-3:** Beautify and screen parking lots located adjacent to a street edge with landscaping, shade trees, and decorative paving treatments.
- **Policy UD 40-4:** Use planter beds, decorative paving materials, and safe pedestrian paths to break up large areas dedicated to parking.

**Conservation Element.** The City's Conservation Element (1973) addresses the conservation and enhancement of the City's natural and scenic resources. Goals and policies presented within the Conservation Element are intended to optimize and manage the City's resources. The following goals and policies related to land uses and planning presented in the Conservation Element would apply to the proposed project:

**GOAL:** To conserve the natural resources of Long Beach through wise management and well planned utilization of water, vegetation, wildlife, minerals, and other resources.

**GOAL:** To promote health, safety, and well-being of the people of Long Beach by adopting standards for the proper balance, relationship, and distribution of various types of land uses, and by formulating and adopting a long-term capital improvement program.

**Open Space and Recreation Element.** The City's Open Space and Recreation Element (2002) addresses the preservation of open space and recreation. Goals and policies presented within the Open Space and Recreation Element are intended to manage the use and enhancement of the City's parklands. The following goals and policies related to land uses and planning presented in the Open Space and Recreation Element would apply to the proposed project:

**Policy 1.3:** Incorporate environmentally sustainable practices in City programs and projects.

**GOAL:** Provide for and maintain sufficient open space for adequate protection of lives and property against natural and man-made safety hazards

**2013–2021 Housing Element.** The City's 6th Cycle Housing Element (Housing Element) was adopted by the City on February 8, 2022, for the current planning cycle. The City's Housing Element reflects the State's housing unit construction goals as allocated by SCAG in the Regional Housing Needs Assessment for the years between 2021 and 2029. The Housing Element analyzes current housing needs, estimates future housing needs, considers potential sites for additional housing, and establishes goals, policies, and programs in response to both current and future housing needs. The following goals and policies related to land uses and planning presented in the Housing Element would apply to the proposed project:

**GOAL 1:** Provide Increased Opportunities for the Construction of High-Quality Housing.

- **Policy 1.1:** Implement the 2019 Land Use/Urban Design Element update through a comprehensive rezoning program citywide that will provide adequate sites, zoned at the appropriate densities and development standards, to facilitate the housing production and affordability goals set forth in the 2021–2029 RHNA.
- **Policy 1.5:** Encourage new high-quality rental and ownership housing through the implementation of objective design standards, and architectural and green building standards in alignment with the Urban Design Element of the General Plan.
- **Policy 1.6:** Facilitate adaptive reuse of existing structures for residential purposes.
- **Policy 1.7:** Encourage residential development along transit corridors, in the downtown and close to employment, transportation and activity centers; and encourage infill and mixed-use developments in designated districts in alignment with the City's Climate Action and Adaptation Plan (CAAP) to minimize carbon emissions by focusing new housing near transit and jobs.

**GOAL 5:** Retain and Improve the Quality of Existing Housing and Neighborhoods.

- **Policy 5.4:** Prioritize public improvements (such as streets and drainage, sidewalks and alleys, green spaces and parks, street trees, and other public facilities, amenities and infrastructure) in neighborhoods with the greatest need, including neighborhoods with high concentrations of poverty and limited existing resources and amenities.
- **Policy 5.6:** Create healthy neighborhoods by performing ongoing property inspections, eliminating threats to the public health, promoting business establishments that offer healthy food choices, and encouraging sustainable cooling options (solar panels, tree-planting, cool building materials and pavements) to protect at-risk populations such as children and older adults.
- **Policy 5.7:** Encourage place-based strategies for neighborhood planning and improvements that incorporate biking, pedestrian, and public transit connections from lower-resource to higher-resource areas and providing shade coverage, such as tree canopy or awnings, at public transit, to enhance access to amenities throughout the city.
- **Policy 5.11:** Promote green building standards in the rehabilitation of existing housing.

**Air Quality Element.** The Air Quality Element, which was adopted in 1996, bridges the Land Use and Mobility Elements of the City's General Plan to better recognize the relationship between land use patterns, transportation planning, and air quality, and identifies a broad range of actions that could contribute to cleaner air in the City and surrounding region. The Air Quality Element identifies a series of policies, programs, and strategies that encourage fewer vehicle trips, increased opportunities for alternative transportation modes and fuels, and land use patterns that can be efficiently served by a diversified transportation system. The following goals and policies related to land uses and planning presented in the Air Quality Element would apply to the proposed project:

- **Policy 2.1.1:** Reduce Vehicle Trips. Use incentives, regulations, and transportation demand management techniques, in cooperation with other jurisdictions in the South Coast Air Basin to eliminate vehicle trips that would otherwise occur.
- **Policy 2.1.2:** Reduce Vehicle Miles Traveled. Use incentives, regulations, and transportation demand management techniques, in cooperation with other jurisdictions in the South Coast Air Basin to eliminate vehicle miles traveled.
- **Policy 2.3.1:** Expand Transit in the City and the Region. Cooperate in efforts to expand all forms of mass transit within the City and the Southern California Air Basin.
- **Policy 2.4.1:** Promote Non-Motorized Transportation. Promote convenient and continuous bicycle paths and pleasant pedestrian environments that will encourage non-motorized travel within the City.
- **Policy 2.6.2:** Fleet Conversion to Clean Fuels. Play a leadership role in the conversion to clean fuels by promoting the increased use of compressed natural gas (CNG), electric vehicles, and other alternative fuels.

**GOAL 5.0:** A pattern of land uses that can be efficiently served by a diversified transportation system and that directly and indirectly minimizes air pollutants.

- **Policy 5.1:** Regulate land use and promote development in a manner that will support established transit services and reduce the need for the automobile.

**GOAL 7.0:** Reduce emissions through reduced energy consumption.

- **Policy 7.1:** Energy Conservation. Reduce energy consumption through conservation improvements and requirements.
- **Policy 7.2:** Recycle Wastes. Promote local recycling of wastes and the use of recycled materials.

**Historic Preservation Element.** The Historic Preservation Element, which was adopted in 2010, addresses the protection and sustainability of the City's historic resources. Goals and policies presented within the Historic Preservation Element are intended to recognize, maintain, and protect the community's unique historical, cultural, and archeological sites and structures. The following goals and policies related to land uses and planning presented in the Historic Preservation Element would apply to the proposed project:

- **Policy P.2.4:** The City shall ensure compliance of all historic preservation, redevelopment, and new construction projects with the California Environmental Quality Act (CEQA), and Section 106 of the National Historic Preservation Act.
- **Policy P.5.3:** The City shall consider historic preservation goals and policies when making community and economic development decisions and determining sustainable-city strategies.
- **Policy P.5.7:** The City shall promote historic preservation as a sustainable land use practice.
- **Implementation Measure I.M.5.10:** The City will encourage the use of compatible sustainable energy systems in historic buildings and water-saving landscapes on historic sites

**Seismic Safety Element.** The City's Seismic Safety Element (1998) provides a comprehensive analysis of seismic factors so as to reduce loss of life, injuries, damage to property, and social and economic impacts resulting from future earthquakes. Goals and policies presented within the Seismic Safety Element are intended to guide future development that is responsive to seismic safety considerations. The following goals and policies related to land uses and planning presented in the Seismic Safety Element would apply to the proposed project:

**GOAL:** Utilize seismic safety considerations as a means of encouraging and enhancing desired land use patterns.

**GOAL:** Provide an urban environment which is safe as possible from seismic risk.

**GOAL:** Use physical planning as a means of achieving greater degrees of protection from seismic safety hazards.

**GOAL:** Encourage development that would be in most harmony with nature and thus less vulnerable to earthquake damage.

**GOAL:** Strive to encourage urbanization patterns which preserve and/or create greater earthquake safety for residents and visitors.

**Noise Element (1975).** The existing Noise Element, which was adopted in 1975, identifies noise-sensitive land uses and noise sources, and defines areas of noise impacts. The City is in the processing of updating their Noise Element; however, the 1975 Noise Element is still the adopted element as of the Notice of Preparation for this Draft SEIR. The following goals related to land uses and planning presented in the 1975 Noise Element would apply to the proposed project:

**GOAL:** To prevent the loss of relatively quiet areas of Long Beach by regulating potential noise sources.

**GOAL:** To apply zoning, noise ordinance and other legislation to prevent an increase of noise levels and occurrences.

**GOAL:** To enact a strong anti-noise ordinance, including limits on transportation, industrial, construction and population noise.

**GOAL:** To describe the noise problems areas which are within local control.

**GOAL:** To continue to take restorative measures to remedy and reduce high noise areas within the City.

**GOAL:** Recommending a plan for compatible land uses for those portions of Long Beach within transportation noise zones.

**GOAL:** To reduce the level of noise exposure to the population caused by demolition and construction activities.

**GOAL:** To reduce the level of outdoor noise exposure to the population generated by industries.

**GOAL:** To reduce the level of outdoor noise exposure the population is subjected to.

**GOAL:** To provide criteria and standards for building construction materials intended to reduce noise levels inside homes.

**GOAL:** To facilitate wherever feasible, noise standards that shall be employed in a manner consistent with proposed land uses, population densities and building types.

**Mobility Element.** The Mobility Element, which was adopted in 2013, addresses the movement of people and goods via automobiles, transit, bicycles, and other modes. It addresses key issues such as trip reduction; parking, bicycle, and pedestrian access; traffic flow; transportation improvements

and funding; and traffic safety. The following goals and policies related to land uses and planning presented in the Mobility Element would apply to the proposed project:

**STRATEGY No. 1:** Establish a network of complete streets that complements the related street type.

- **MOP Policy 1-9:** Increase mode shift of transit, pedestrians, and bicycles.
- **MOP Policy 1-10:** Encourage innovative and/or private transit-related systems to address discrete transit problems.
- **MOP Policy 1-11:** Continue to assist Long Beach Transit in implementing a comprehensive, Citywide transit service that meets future needs.
- **MOP Policy 1-12:** Encourage large employers to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education, and preferential parking for carpools/vanpools.
- **MOP Policy 1-17:** Develop land use policies that focus development potential in locations best served by transit.

**STRATEGY No. 2:** Reconfigure streets to emphasize their modal priorities.

- **MOP Policy 2-4:** Provide transit centers at major activity centers and develop linkages, including express transit service, between the centers and Downtown.
- **MOP Policy 2-3:** Maintain all transit vehicles, stops, and centers in a clean, safe, and attractive condition.
- **MOP Policy 2-4:** Provide transit centers at major activity centers and develop linkages, including express transit service, between the centers and Downtown.
- **MOP Policy 2-5:** Clarify transit routing and make transit information, including arrival times, available at all transit centers, bus stops, on all buses, and on light rail trains.
- **MOP Policy 2-6:** Ensure high-quality, on-street access to transit stops and stations.
- **MOP Policy 2-7:** Treat streets as an important part of the public open space system, and integral part of the City's urban forest.
- **MOP Policy 2-16:** Close gaps in the existing bikeway system.

**STRATEGY No. 4:** Establish a more flexible level of service approach to traffic analysis and improvements.

- **MOP Policy 4-3:** Develop a new Multimodal Level of Service (MMLOS) methodology that includes the following components: Emphasis on pedestrian and bicycle access and circulation.

Maintenance of appropriate emergency vehicle access and response time. Support for reduced vehicle miles traveled. Considers, but does not deem, auto congestion in Downtown or Long Beach Boulevard Transit Oriented Development (TOD) district to be an impact.

**STRATEGY No. 5:** Reduce the environmental impacts of the transportation system.

- **MOP Policy 5-1:** Incorporate “green infrastructure” design and similar low impact development principles for stormwater management and landscaping in streets.
- **MOP Policy 5-2:** Reduce vehicle miles traveled (VMT) and vehicle trips through the use of alternative modes of transportation and Transportation Demand Management (TDM).
- **MOP Policy 5-3:** Encourage the use of low- or no-emission vehicles to reduce pollution.
- **MOP Policy 5-4:** Promote car-sharing and Neighborhood Electric Vehicle ownership as an important means to reduce traffic congestion.
- **MOP Policy 5-5:** Sustain the recent improvements in air quality and achieve further significant progress in such improvements to meet State and federal mandates.
- **MOP Policy 5-6:** Support the development of a network of public and private alternative fuel vehicle charging/fueling stations Citywide.

**STRATEGY No. 18:** Promote an electrical utility system that is less dependent on regional power plants and embraces local energy development through the use of solar and wind technologies.

- **MOP Policy 18-1:** Encourage residents and businesses to install solar and wind power systems.
- **MOP Policy 18-2:** Promote tax incentives and rebate programs for solar and wind energy systems.

**Public Safety Element (1975).** The Public Safety Element, which was adopted in 1975, provides goals and policies to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from natural and human-induced hazards. The Public Safety Element specifically addresses urban fire hazards, coastal hazards, geologic hazards, crime prevention utility-related hazards, hazardous materials, flood hazards, and disaster planning. The following goals and policies related to land uses and planning presented in the Public Safety Element would apply to the proposed project:

**GOAL:** Utilize safety considerations, as a means of encouraging and enhancing desired land use patterns.

**GOAL:** Provide an urban environment, which is as safe from all types of hazards as possible.

**GOAL:** Continue to identify existing or proposed uses or activities that may pose safety hazards.

**GOAL:** Use physical planning as a means of achieving greater degrees of protection from safety hazards.

**GOAL:** Encourage transportation systems, utilities, industries, and similar uses to locate and operate in a manner consistent with public safety goals.

**GOAL:** Assure continued safe accessibility to all urban land uses throughout the City.

**GOAL:** Encourage development that would be most in harmony with nature and thus less vulnerable to natural disasters.

**GOAL:** Strive to encourage urbanizations patterns, which preserve and/or create greater safety for residents and visitors.

**GOAL:** Critically evaluate proposed public or private actions, which may pose safety hazards to residents or visitors.

**GOAL:** Effectively utilize natural or man-made landscape features to increase public protection from potential hazards.

**GOAL:** Reduce the potential adverse economic, environmental, and social conditions, which could result from a major disaster.

**GOAL:** Assure continued economic stability and growth minimizing potential safety hazards.

**GOAL:** Protect the citizens against possible personal loss resulting from disaster events.

#### 4.5.3.5 Local Coastal Program

The City of Long Beach became the first City in California to adopt an LCP when the CCC certified its LCP on July 22, 1980. The LCP is the primary planning tool used to guide land use and development within the City's Coastal Zone, which encompasses approximately 3,100 acres along the coastline. Within the Coastal Zone, the City's LCP outlines goals and policies to protect and enhance coastal resources. Specifically, these goals and policies are aimed at maximizing public access to the coast, protecting low-cost housing and recreational facilities, and increasing recreational boating and other uses of coastal waters.

#### 4.5.3.6 Specific Plans

In addition to the existing General Plan land use designations and zoning districts, the City has also adopted several Specific Plans that serve as the presiding regulatory documents guiding land use within specific areas of the City. These specific plans include the Southeast Area Specific Plan (SEASP), the Downtown Plan, the Midtown Specific Plan, and the Globemaster Specific Plan. The proposed project would apply to the entire City; however, it would not result in any land use changes, and the project would allow for existing Specific Plans to continue regulating land use and planning within areas designated as such in the City.

#### 4.5.3.7 City of Long Beach Zoning Code

Title 21, Zoning, of the Long Beach Municipal Code includes property development standards, as well as design guidelines, for development projects within the City. Among the aspects of development regulated by the City's Municipal Code are types of allowable land uses, setback and height requirements, landscaping, walls, fencing, signage, access, parking requirements, storage areas, and trash enclosures. The Long Beach Municipal Code also provides performance standards for various land use types to measure development projects' consistency with such regulations. The City is currently in the process of establishing Title 22 to facilitate a substantial update to the City's Zoning Code consistent with the recently adopted LUE. The intention is to fully transition from Title 21, which is the currently established zoning chapter within the City's Municipal Code, to Title 22, which will eventually regulate zoning throughout the City.

#### 4.5.4 Methodology

The impact analysis of this section considers the physical impacts of the proposed project related to land use compatibility and considers whether or not there are potential inconsistencies of the proposed project with applicable planning documents from the City and other agencies with relevant plans or policies. Consistency of a project with an applicable plan is made by the Lead Agency when it acts on the project. The analysis in this Draft SEIR discusses the findings of policy review and is meant to provide a guide for decision-makers during policy interpretation.

A project's inconsistency with a policy is only considered significant if such inconsistency would cause significant physical environmental impacts. This Draft SEIR section determines whether any project inconsistencies with public land use policies and documents would be significant and whether mitigation is feasible. Under this approach, a policy conflict is not in and of itself considered a significant environmental impact. An inconsistency between a proposed project and an applicable plan is a legal determination that may or may not indicate the likelihood of environmental impact. In some cases, an inconsistency may be evidence that an underlying physical impact is significant and adverse, while in other cases, such an inconsistency may not result in significant physical impacts.

#### 4.5.5 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the *State CEQA Thresholds of Significance*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact related to land use and planning if it would:

**Threshold 4.5.1:** Physically divide an established community

**Threshold 4.5.2:** Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect

## 4.5.6 Project Impacts

### Threshold 4.5.1: Would the project physically divide an established community?

**CAAP: Less Than Significant Impact.** The planning area is almost entirely developed and is currently characterized by a mix of Open Space, Founding and Contemporary Neighborhood, Multi-Family Residential, Neighborhood-Serving Centers and Corridors, Transit-Oriented Development, Community Commercial, Industrial, and other PlaceTypes, as described in Section 4.5.3, Existing Environmental Setting, above. The proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development that would have the potential to divide an established community. Implementation of CAAP Actions by the City or other agencies, such as performance of municipal energy and water audits (BE-7), may not be subject to discretionary approval and project-level CEQA review. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions at the project level and would help achieve the City's greenhouse gas (GHG) emissions targets. Therefore, future discretionary actions that include project level measures to support CAAP Actions could result in physical impacts to established communities.

CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a project does not include specific Tier 1 measures, equivalent measures for GHG emission reductions backed by substantial evidence must be provided for the project to utilize the Checklist in lieu of a project-level GHG analysis.

Measures that support the CAAP Actions include measures related to Building and Energy, Transportation, Waste, and would not physically divide an established community. The location and design of future discretionary projects that would implement the Tier 1 CAAP Actions required to meet the City's GHG targets and all other applicable CAAP Actions would be required to be consistent with goals, policies, strategies, and development standards established by the adopted LUE and UDE, which are intended to avoid, reduce, offset, or otherwise minimize identified potential adverse impacts of the proposed project or provide significant benefits to the community and/or to the physical environment.

Implementation of small-scale building and energy improvements such as solar panels and energy-efficiency retrofits, as well as small-scale waste improvements such as provisions of recycling and compost bins and other improvements included in the measures to support the CAAP Actions, are anticipated to be included with future development projects utilizing the CAAP Checklist and are not anticipated to involve construction of large buildings or structures of a scale that would divide an established community. Future development of larger facilities, such as future discretionary projects that would promote community solar (BE-3) or new organic waste facilities, would be subject to project-specific CEQA review and would be evaluated for consistency with the land uses and

standards of the adopted LUE and PlaceTypes. As the adopted PlaceTypes are intended to emphasize flexibility and allow for mixes of compatible uses, consistency with the PlaceTypes would ensure that all future development adheres to design standards and guidelines for land use, form, and character-defining features tailored to specific locations to promote cohesion within defined communities. Similarly, future discretionary projects that include the development of new transit facilities and increased residential, commercial, and mixed-use development that may result in the development of structures would be evaluated for consistency with the adopted LUE and UDE, and the Mobility Element at the time such discretionary projects are submitted for review and approval. The PlaceTypes established by the adopted LUE were established in order to allow for greater flexibility, density, and mix of compatible land uses, including increased density near transit, consistent with the goals of the CAAP and associated CAAP Actions.

Other Tier 2 measures to support the CAAP Actions for Transportation listed on the CAAP Checklist are designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establish bus-only lanes, and expand electric-vehicle charging infrastructure to further reduce emissions. Therefore, the measures to support the CAAP Actions would help implement the goals and policies of the adopted LUE and Mobility Element. Furthermore, these measures to support the CAAP Actions would be designed for consistency with the adopted UDE which encourages transitions of PlaceTypes while decreasing land use conflicts. Implementation of Tier 1 measures would support the CAAP Actions for Waste by requiring recycling (W-1) and organic waste collection and processing (W-2, W-3, and W-4). Other CAAP Actions for Waste supported by the measures listed on the CAAP Checklist would expand community-wide participation in organic waste collection and diversion. Therefore, potential impacts of the CAAP Actions to divide established communities would be less than significant, and no mitigation would be required.

As described above, in addition to the Tier 1 and Tier 2 measures to support the CAAP Actions related to Building and Energy, Transportation, and Waste that would apply to future development to achieve the GHG emissions target of the CAAP, the proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. The Adaptation Actions provide general strategies that may be needed to lessen climate change impacts based on the CAAP Vulnerability Assessment. While the Adaptation Actions would not be required to meet the City's GHG reduction targets in the same way that CAAP Actions are, they are listed on the CAAP Checklist for future discretionary projects to incorporate relevant Adaptation Actions, as applicable, to lessen the impacts of climate change and demonstrate consistency with the overall goals and strategies of the CAAP. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions to lessen the impacts of climate change on critical infrastructure and public facilities. The proposed CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact that would be accomplished through implementation of the Adaptation Actions. There is not sufficient information at this time to analyze potential future physical improvements that may be needed to implement the proposed framework of Adaptation Actions in the CAAP, such as elevating infrastructure or creating sand dunes to lessen the impacts of flooding due to climate change. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future improvements would be analyzed on a project level pursuant to CEQA

and for consistency with policies and standards in the General Plan. Therefore, potential impacts of the Adaptation Actions to divide established communities would be less than significant, and no mitigation is required.

It should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to the physical division of a community. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would physically divide a community. Therefore, the Safety Element Update would have no impact on physically dividing an established community, and no mitigation is required.

**Threshold 4.4.2:**        **Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

**CAAP: Less Than Significant Impact.** The proposed CAAP is being prepared in compliance with Mitigation Measure GHG-1 of the 2019 Certified Program EIR, which was required as part of the LUE adoption. The 2019 Certified Program EIR was developed to be in compliance with all land use plans, policies, and regulations that have been adopted to avoid or mitigate environmental impacts. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to conflicts with such adopted plans, policies, or regulations. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR, and would be considered consistent with such plans, policies, and regulations to avoid environmental impacts, as discussed further below.

Several regionally and locally adopted land use plans, policies, and regulations govern land uses within the City including the CCA and the City-certified Local Coastal Program (LCP), the SCAG 2008 Regional Comprehensive Plan (RCP), the SCAG 2020–2045 RTP/SCS, the Los Angeles County ALUP and the Orange County AELUP for the Los Alamitos JFTB, the City of Long Beach General Plan, the City of Long Beach Municipal Code, and applicable Specific Plans. An analysis of consistency of the proposed project with these plans is provided below. Consistency of the proposed project with the 2016 Air Quality Management Plan and the 2017 Orange County Transportation Authority (OCTA) Congestion Management Program are discussed in Section 4.2, Air Quality, and Section 4.10, Transportation/Traffic, respectively, of this Draft SEIR.

**California Coastal Act.** As previously identified, the southern area of the City is located within the Coastal Zone, which is regulated by the CCC under the CCA. As the proposed project is being evaluated at the program level and would not include any physical improvements within the Coastal Zone, adoption of the CAAP would not require any CDPs from the CCC.

While adoption of the CAAP in and of itself would not result in new development, the proposed project would be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining of proposed development projects that are consistent with existing land use regulations. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would achieve the City's GHG emissions targets. The CAAP Checklist also includes Tier 1 and Tier 2 measures to support the CAAP Actions including the expansion of the bicycle and pedestrian network and other measures to reduce VMT and would promote increased housing and employment along major transit corridors and increased density and mixing of land uses. Measures to support the CAAP Actions related to Waste would encourage recycling compliance and expanded organic waste collection. In accordance with Chapter 3 of the CCA, the proposed project aims to protect, maintain, and enhance the overall quality of the California Coastal Zone by reducing the City's GHG emissions through the CAAP Actions that promote clean energy, reduced VMT, and waste reduction. Furthermore, any future discretionary projects that would utilize the CAAP Checklist within the Coastal Zone would be subject to review under CEQA and a project-specific CCA consistency analysis would be prepared. Furthermore, the Adaptation Actions listed in the CAAP include strategies to lessen the impacts of flooding associated with sea level rise and intense storm events, specifically to preserve coastal access and recreation through elevation, retrofit or relocation of critical infrastructure. There is not enough information known at this time to analyze potential future projects to implement such strategies, and future projects to implement adaptation actions will be subject to project-level CEQA review. If Adaptation Actions are applicable to future discretionary projects or if future discretionary projects are developed to implement the Adaptation Actions at specific locations, a project-specific consistency analysis would be conducted, along with CEQA review for such projects; however, overall, the intent of these actions is consistent with goals of the CCA to preserve and maintain coastal resources. For the reasons stated above, the proposed project would be consistent with applicable goals and policies outlined in the CCA. Impacts would be considered less than significant, and no mitigation is required.

**Local Coastal Program Consistency.** The City's LCP outlines provisions related to the following general policies: Transportation and Access; General Housing Policy; Park Dedication Policy; and Strand Use and Access. The proposed project would be consistent with applicable provisions of the LCP related to Transportation and Access because the measures to support the CAAP Actions related to Transportation include provisions of bicycle, pedestrian, and transit options throughout the City, including within the Coastal Zone. The measures to support the CAAP Actions would also be consistent with the LCP's General Housing Policy provisions by encouraging employment and residential development along primary transit corridors and would be consistent with the adopted LUE and PlaceTypes, once incorporated into the LCP. The measures to support the CAAP Actions would be consistent with applicable provisions of the LCP related to Strand Use and Access because they would promote improvements to existing and future pedestrian and bicycle pathways,

consistent with the LCP and goals of the CCA. Therefore, the proposed project would be consistent with applicable provisions of the LCP related to the general policies discussed above.

Although the proposed CAAP would be implemented as required by the 2019 Certified Program EIR, future discretionary projects that utilize the CAAP Checklist may be inconsistent with portions of the City's existing LCP, even though they are consistent with the CAAP. Therefore, updates/amendments to the City's LCP could be required at the time individual applications for development within the City's Coastal Zone are proposed. Additionally, as the City updates zoning in each specific area as part of its comprehensive zoning update, the City will also update the LCP and submit it to the CCC for review and approval. Therefore, approval of these future LCP updates and future LCP amendments would reduce potential inconsistencies with the City's LCP to a less than significant level.

As described above, the Adaptation Actions include strategies to withstand flooding associated with sea level rise and intense storm events, specifically to preserve coastal access and recreation through elevation, retrofit or relocation of critical infrastructure. Therefore, while the Adaptation Actions would require a project-specific consistency analysis, the intent of these actions is consistent with goals of the CCA to preserve and maintain coastal resources.

For these reasons cited above, the proposed project would be consistent with the applicable goals and policies outlined in the City's LCP. Impacts would be considered less than significant, and no mitigation would be required.

**SCAG 2008 Regional Comprehensive Plan.** The 2008 Regional Comprehensive Plan (RCP) addresses regional goals related to growth and infrastructure in the Southern California region. The 2008 RCP also addresses issues such as housing, traffic, air quality, and water resources as a guide for local agencies to use in preparing plans that deal with regional issues. The 2008 RCP outlines a vision of how the Southern California region can balance growth with conservation in order to achieve a higher quality of life. In order to achieve this balance the RCP aims to establish the following land use and housing goals: (1) focus growth in existing centers and along major transportation corridors, (2) encourage mixed-use development, (3) provide new housing opportunities, (4) encourage development near existing and planned transportation stations to reduce traffic congestion and associated air pollutants, (5) preserve existing single-family neighborhoods, and (6) protect open space and environmentally sensitive habitat areas from development.

The CAAP was developed to help implement the LUE in the most sustainable way possible, and the LUE was designed to be consistent with the RCP as described in the 2019 Certified Program EIR. While adoption of the CAAP would not result in new development, the proposed project would be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining. The measures to support the CAAP Actions would encourage development along transit corridors and transportation infrastructure improvements projects that would emphasize land use and mobility connectivity.

Measures to support the CAAP Actions that would promote new housing and employment options along transit corridors would be implemented consistent with adopted LUE PlaceTypes, which

emphasize flexible land use patterns and allow for a mix of compatible uses in areas throughout the City. Therefore, the proposed project would be consistent with the 2008 RCP's goals to focus growth near major transportation corridors and transportation stations and to encourage mixed-use development.

As described further in Section 4.7, Population and Housing, the measures to support the CAAP Actions do not specifically include development of housing but include land use strategies to help the City meet its GHG reduction goals, consistent with the adopted LUE. As the adopted LUE and measures to support the CAAP Actions promote housing along major transit corridors, the proposed project would be consistent with the 2008 RCP's goals to provide additional housing opportunities. In addition, the measures to support the CAAP Actions would be implemented with future discretionary projects consistent with the adopted PlaceTypes and therefore would not result in conversion of land uses. Therefore, the proposed project would be consistent with the 2008 RCP's goals to preserve existing single-family neighborhoods and protect open space and environmentally sensitive habitat areas from development.

The Adaptation Actions listed in the CAAP include strategies to withstand rising temperatures, flooding associated with sea level rise and intense storm events, and drought, specifically to expand transit access to the cooling centers and the coast. If Adaptation Actions are applicable to future discretionary projects or if future discretionary projects are developed to implement the Adaptation Actions at specific locations, a project-specific consistency analysis would be conducted, as well as CEQA review for such projects; however, overall, the intent of these actions is consistent with goals of the RCP's goals related to expanding transit access.

For the reasons stated above, the proposed project would be consistent with applicable goals outlined in the 2008 RCP. Impacts would be considered less than significant, and no mitigation would be required.

**SCAG Regional Transportation Plan/Sustainable Communities Strategy Consistency.** For the City and much of the Southern California region, SCAG is the Metropolitan Planning Organization (MPO) that prepares demographic projections. These demographic projections are included in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Connect SoCal (2020–2045 RTP/SCS) provides a comprehensive outline for transportation investments throughout the SCAG region. Connect SoCal outlines the following primary goals: (1) encourage regional economic prosperity and global competitiveness, (2) improve mobility, accessibility, reliability, and travel safety for people and goods, (3) enhance the preservation, security, and resilience of the regional transportation system, (4) increase person and goods movement and travel choices within the transportation system, (5) reduce greenhouse gas emissions and improve air quality, (6) support healthy and equitable communities, (7) adapt to a changing climate and support an integrated regional development pattern and transportation network, (8) leverage new transportation technologies and data driven solutions that result in more efficient travel, (9) encourage development of diverse housing types in areas that are supported by multiple transportation options, and (10) promote conservation of natural and agricultural lands and restoration of habitats.

Adoption of the CAAP would not result in new development, and projects to implement the CAAP would be subject to project-level CEQA review as required. The proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining. Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 2 measures for the Transportation sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service (T-1), providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5), complying with City TDM requirements (T-7), and complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to Senate Bill (SB) 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Other Tier 2 measures to support the CAAP Actions for Transportation listed on the CAAP Checklist are designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establish bus-only lanes, and expand electric-vehicle charging infrastructure to further reduce emissions. As described above, the Adaptation Actions include strategies to withstand rising temperatures, flooding associated with sea level rise and intense storm events, and drought and include strategies to expand transit access to the cooling centers and the coast. Therefore, while implementation of these Adaptation Actions would require a project-specific consistency analysis, the intent of these actions is consistent with goals of Connect SoCal to expanding transit access. Therefore, the proposed project would be consistent with the goals of Connect SoCal described above.

For these reasons cited above, the proposed project would be consistent with the Connect SoCal. Impacts would be considered less than significant, and no mitigation would be required.

**General Plan, Specific Plan, Port Master Plan, and Airport Land Use Plan Consistency.** The proposed project is requesting to adopt the CAAP in compliance with Mitigation Measure GHG-1 of the 2019 Certified Program EIR and update the General Plan Safety Element for consistency with the proposed CAAP and adopted LUE. Approval of the proposed project would ensure that future development reduces the City's GHG emissions and assists in implementing the CAAP Actions to meet their GHG reduction targets.

The proposed project would be consistent with California Government Code Section 65302 as it implements Mitigation Measure GHG-1 of the 2019 Certified Program EIR and updates another required element (Safety Element) in the City's General Plan. The proposed CAAP and Safety Element Update, together with the other General Plan Elements, would serve to guide the overall physical development and urban form of the entire City through the horizon year 2040.

The proposed CAAP provides a framework to reduce the City's GHG footprint (climate action) and ensure the community and physical assets are better protected from the impacts of climate change (climate adaptation). The vision of the proposed CAAP is to create a more sustainable, resilient, and equitable City by addressing climate change in a way that remedies existing environmental health

disparities while also improving health, quality of life, and enhancing economic vitality throughout Long Beach. The proposed CAAP includes strategies for implementing new policies, programs, incentives, requirements, projects, and initiatives in the immediate future, as well as longer-term actions that will need to be studied further while monitoring how the climate continues to change and evaluating the effectiveness of actions taken.

The proposed CAAP also identifies Adaptation Actions that provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change in particular locations throughout the City. While the Adaptation Actions would not be required to meet the City's GHG reduction requirements, the Adaptation Actions that could be incorporated into future development projects are listed on the CAAP Checklist for future discretionary projects to incorporate relevant Adaptation Actions, as applicable, to lessen the impacts of climate change and demonstrate consistency with the overall goals and strategies of the CAAP. Additional analysis will be needed to develop specific adaptation approaches, and projects at specific locations and future development would be analyzed on a project level for consistency with policies and standards in the City's General Plan Elements.

The proposed CAAP discusses several desired high-level outcomes, which are organized into the following themes: low carbon, climate resilient buildings and neighborhoods; safe and adaptable infrastructure; protected and enhanced natural systems; a healthy, resilient and ready population; and residents and businesses with a minimized carbon footprint. The purpose of the CAAP is to implement a range of actions to reduce GHG emissions and adapt to climate change impacts consistent with the adopted goals and policies of the City's General Plan. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Adoption of the CAAP and implementation of the CAAP Actions would be internally consistent between the City's General Plan Elements.

***Historic Preservation Element (2010).*** The proposed project is the evaluation of potential programmatic-level impacts of the CAAP, CAAP Actions, and Adaptation Actions that would apply to future discretionary projects, which would also be evaluated for their consistency with the Historic Preservation Element. Furthermore, by implementing actions that would help meet the City's GHG reduction goals and climate Adaptation Actions, impacts to historic resources from climate change would also be reduced. Therefore, the proposed project would be consistent with the overall intent of the City's General Plan Historic Preservation Element.

***Open Space and Recreation Element (2002).*** The proposed project is the evaluation of potential programmatic-level impacts of the CAAP, CAAP Actions, and Adaptation Actions that would apply to future discretionary projects, which would also be evaluated for their consistency with the Open Space and Recreation Element. Future discretionary projects consistent with the LUE PlaceTypes would preserve existing open space and recreational facilities throughout the City. In addition, Adaptation Strategies to lessen the impacts of climate change on public facilities would also reduce impacts to parks and open space. Therefore, the proposed project would be consistent with the overall intent of the City's General Plan Open Space and Recreation Element.

**Housing Element (2022).** The proposed project is the evaluation of potential programmatic-level impacts of the CAAP, CAAP Actions, and Adaptation Actions that would be applicable to future development of new housing units and employment opportunities along primary transit corridors. Although the CAAP itself would not result in any housing development, future discretionary projects would be evaluated for their consistency with the Housing Element. Therefore, the proposed project would be consistent with the overall intent of the City's General Plan Housing Element.

**Air Quality Element (1996).** Four goals guide the Air Quality Element: achieve air quality improvements in such a manner that sustains current economic development while encouraging future growth; improve the quality of life for citizens by providing greater opportunities, convenience, and choices; reinforce local mobility goals by reducing peak-hour traffic congestion; and foster behavior change through public information and education, incentives, and pricing that reflects total societal costs for administration and enforcement. The Air Quality Element includes specific policies and goals related to emissions reductions through increased alternative energy sources, reduction in vehicle miles traveled, provisions of transit and multi-modal facilities, reduction in energy usage, and promotion of recycling. The CAAP addresses sustainability through building and energy efficiency, VMT reduction and infrastructure improvements to reduce emissions from transportation, and the reduction of building energy and waste which also contributes to air quality emissions. Adoption of the CAAP and implementation of CAAP Actions would be consistent with the overall intent of the Air Quality Element as the primary purpose of the CAAP is to reduce GHG emissions.

**Land Use Element (2019).** The CAAP was developed to help implement the LUE in the most sustainable way possible, and measures to support the CAAP Actions for Waste, Building and Energy, and Transportation would all be consistent with the adopted LUE. For example, the CAAP supports LUE Strategy No. 1 to support sustainable urban development patterns. In addition, measures to support the CAAP Actions for Building and Energy would also be consistent with policies in the adopted LUE that require management of energy resources to reduce GHG emissions and the impacts of climate change by employing a full range of feasible means to meet climate goals (Strategy No. 2). Measures to support the CAAP Actions for Transportation for transit (T-1), pedestrian facilities (T-2), and bicycle facilities (T-3) would be consistent with the policies in the adopted LUE related to the provisions of transit (LU Policies 1-2, 4-2, and 7-6) and bicycle and pedestrian facilities (LU Policies 1-1 and 7-7).

In addition, the CAAP is a required mitigation measure in the 2019 Certified Program EIR prepared for the LUE in order to reduce GHG emissions. Therefore, the proposed CAAP is consistent with the overall intent of the City's General Plan LUE.

**Mobility Element (2013).** The proposed project would further the goals of the City's General Plan Mobility Element by reducing GHG emissions and implementing measures to support the CAAP Actions for new development along primary transit corridors. Further, the proposed project encourages improvements to the citywide pedestrian and bicycle network established in the Mobility Element. Therefore, the proposed project would be consistent with the overall intent of the City's General Plan Mobility Element.

**Seismic Safety Element (1988).** The proposed project includes measures to support the CAAP Actions that would apply to future discretionary projects that would also be subject to the City's Zoning Code Update (Title 22) and Building Code (Title 18), both of which include provisions for seismic safety. As described above, the goals of the Seismic Safety Element are largely related to the reduction of seismic hazards through the urbanization patterns and physical planning process developed by the City in the adopted LUE and PlaceTypes. The measures to support the CAAP Actions would be implemented with future discretionary projects that would support the implementation of the adopted PlaceTypes, including increased housing and employment along major transit corridors (T-6), and increased density and mixing of land uses (T-8). Therefore, the proposed project would be consistent with the overall intent of the City's General Plan Seismic Safety Element.

**Noise Element (1975).** The proposed project includes measures to support the CAAP Actions that would apply to future discretionary projects that would also be subject to the City's Municipal Code, which includes standards for noise throughout the City, consistent with the goals and policies identified in the Noise Element. Therefore, the proposed project would be consistent with the overall intent of the City's General Plan Noise Element.

**Public Safety Element (1975).** The adoption of the CAAP would help implement policies related to sustainability and reduce potential impacts of climate change as a result of GHG emissions. The potential impacts of climate change on the City present potential risks to public safety in the form of sea level rise, emergency evacuations, housing and structure vulnerability, health risks, flood hazards, wildfires, and other related climate and safety concerns. The proposed project also includes text changes to the Safety Element to incorporate recognition of climate change and resiliency based on analysis from the CAAP. As the CAAP is a requirement of the 2019 Certified Program EIR under Mitigation Measure GHG-1, the Safety Element Update would ensure consistency with the climate adaptation and resiliency strategies in the CAAP and policies of the adopted LUE. These minor text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not conflict with any adopted land use plans and would ensure consistency with the adopted LUE. Therefore, the proposed project would be consistent with the overall intent of the existing Public Safety Element and the proposed Safety Element Update.

**Conservation Element (1973).** The Conservation Element is intended to ensure that natural resources, including mineral resources, are considered in land use planning. The proposed project includes measures to support the CAAP Actions that would apply to future discretionary projects that would also be subject to the goals of the Conservation Element, including to promote health, safety, and well-being of the people of Long Beach through consistency with the adopted land use regulations and PlaceTypes for the proper balance, relationship, and distribution of various types of land uses.

Therefore, the proposed project would be consistent with the overall intent of the Conservation Element.

**Urban Design Element (2019).** The Urban Design Element includes goals and policies designed to preserve existing neighborhoods that define unique character and build upon them to allow for continued adaptation and improvement of the built environment. This element identifies key features of the City including edges, thoroughfares, scenic routes, trails, districts, centers, gateways, landmarks and iconic sites, water features, and key views to be considered in land use and planning decisions. The proposed project is the evaluation of potential programmatic-level impacts of the CAAP, CAAP Actions, and Adaptation Actions that would apply to future discretionary projects that would also be required to maintain and enhance the urban design plan of the City included in the adopted UDE. Measures to support the CAAP Actions related to Building and Energy and Waste that encourage the use of solar panels and other energy efficiency improvements and encourage waste reduction would be consistent with UDE policies related to improved healthy living and sustainability (Strategy No. 5). The goals and policies of the UDE were also utilized in the development of the PlaceTypes, which focused on the development of housing and employment opportunities near primary transit corridors. Measures to support the CAAP Actions related to transportation would encourage this development (T-6). Other measures to support the CAAP Actions related to Transportation, including expanding pedestrian and bicycle facilities, would support UDE Strategies No. 41 and 42 for pedestrian and bicycle infrastructure. All future discretionary projects that utilize the CAAP Checklist would also be required to be developed consistent with the overall intent of the UDE.

As adoption of the CAAP would implement Mitigation Measure GHG-1 of the 2019 Certified Program EIR, the proposed project would be consistent with the General Plan. Furthermore, adoption of the CAAP would be consistent with all other General Plan Elements, as described above. Therefore, no inconsistency with the City's General Plan would occur following project approval, and impacts would be considered less than significant. No mitigation is required.

**Adopted Land Use Plans.** As described above, the adoption of the CAAP would not result in any physical development projects but would require future discretionary projects to incorporate measures to support the CAAP Actions. Future discretionary projects would also be reviewed for consistency with adopted land use plans currently regulating development in the City. As such, the proposed project would allow for these plans to continue regulating development within the adopted specific plan, the PMP, and airport land use plan areas. As described above, the Adaptation Actions provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change in particular locations throughout the City. The Adaptation Actions do not include land use regulations that would alter the adopted land use regulations of the specific plans, the PMP, or airport land use plan areas. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future development would be analyzed on a project level for consistency with policies and standards in the applicable adopted land use plans. The proposed project would therefore be consistent with adopted land use plans. Impacts would be considered less than significant, and no mitigation would be required.

**City Zoning Code Consistency.** The adoption of the CAAP in and of itself would not result in any physical development projects, and future discretionary projects that would utilize the CAAP

Checklist would be reviewed for consistency with the City's General Plan and adopted PlaceTypes, reflected in the City's Title 22 Zoning Code Updates. The City is currently implementing an update program and has committed to completing the resolution of all zoning and LCP inconsistencies by the end of the fifth year following the adoption of LUE and UDE in 2019. As described above, the Adaptation Actions provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change in particular locations throughout the City. The Adaptation Actions do not include changes to the Zoning Code. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations and future development would be analyzed on a project level for consistency with the City's Zoning Code. Therefore, the proposed project would not conflict with the City's Zoning Code and Zoning Map, and no mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not conflict with any adopted land use plans and would ensure consistency with the adopted LUE. Therefore, the Safety Element Update would have no impact related to conflicts with adopted land use plans, and no mitigation is required.

#### 4.5.7 Compliance Measures and Project Design Features

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action does not include any project design features related to land use.

#### 4.5.8 Mitigation Measures

The proposed project would not result in any significant adverse impacts related to land use and planning, and no mitigation would be required.

#### 4.5.9 Level of Significance after Mitigation

There would be no significant unavoidable adverse impacts of the proposed project related to land use and planning. No mitigation would be required.

#### 4.5.10 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for land use. The cumulative impact area for land use for the proposed project is the City of Long Beach, assuming the anticipated General Plan buildout scenario. Because the proposed project is a citywide policy/planning action that includes strategies and measures that would apply to future discretionary projects throughout the entire City, the proposed project itself is cumulative in nature. As such, future discretionary projects to implement CAAP Actions would be subject to project level CEQA review as required, General Plan consistency analysis, and would be reviewed for consistency with all applicable adopted land use

plans and policies. For this reason, cumulative impacts associated with inconsistency of future development with adopted plans and policies would be less than significant.

The planning area is almost entirely developed with a wide variety of established land uses. The existing land use patterns within the City have been established with a variety of residential, commercial, office, industrial, and open space/recreational use, which are generally consistent with the City's General Plan Land Use Map and Zoning Map. Because the planning area is highly developed, it is anticipated that future growth would primarily result in infill development and redevelopment. Changes to the existing area would occur through the conversion of vacant or underutilized land. However, future discretionary projects that would utilize the CAAP would be evaluated for consistency with applicable land use plans and policies and would be subject to all City development standards and zoning requirements. Therefore, cumulative land use impacts associated with incompatibilities between existing and future development would be less than significant.

Implementation of the proposed project would not conflict with applicable land use documents. The proposed CAAP would implement Mitigation Measure GHG-1 of the 2019 Certified Program EIR and ensure consistency with the policies of the adopted LUE. The project would also address potential inconsistencies between the adopted Land Use Element and the current Public Safety Element through the proposed Safety Element Update. Therefore, land use impacts associated with the proposed project would be considered less than cumulatively significant, and no mitigation would be required.

## 4.6 NOISE

This section evaluates the potential short-term and long-term noise and vibration impacts associated with the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update Project (proposed project). This section is based on information provided in the Noise Element (1975) of the City of Long Beach's (City) General Plan (which is currently going through the process of updating) and the Noise Ordinance of the City's Municipal Code (adopted 1977, most recent revision 2009). As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects to implement the CAAP would also be subject to project-level CEQA as required. Therefore, the analysis in this Subsequent Environmental Impact Report (SEIR) focuses on the potential impacts from the measures included in the CAAP Consistency Review Checklist (CAAP Checklist) required for future discretionary projects, as well as the potential programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.6.1 Scoping Process

The City of Long Beach received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this SEIR. No comment letters included comments related to noise.

### 4.6.2 Existing Environmental Setting

#### 4.6.2.1 Existing Planning Area

The CAAP and Safety Element Update address all land within the City's jurisdictional limits. Throughout this Draft SEIR, these areas are referred to as the "planning area."

The planning area encompasses 50 square miles (approximately 33,000 acres) within the limits of the City of Long Beach (excluding the City of Signal Hill, which is completely surrounded by the City of Long Beach) in the southern region of Los Angeles County. The planning area is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton, Paramount, and Bellflower; and on the east by the Cities of Lakewood, Hawaiian Gardens, Cypress, Los Alamitos, and Seal Beach. Additionally, the City of Signal Hill is centrally located within the planning area and is completely surrounded by development in the City of Long Beach. The planning area is comprised of nine distinct Community Plan Areas, comprised of the following: (1) North Long Beach; (2) Bixby Knolls; (3) Westside and Wrigley; (4) Eastside; (5) Central; (6) Traffic Circle; (7) Downtown; (8) Midshore; and (9) Southeast. In addition to establishing Community Plan Areas, the planning area consists of 14 "PlaceTypes," which replace the previous approach of segregating property within the City through traditional land use designations and zoning classifications and allows for greater flexibility and a mix of compatible land uses within these areas.

#### 4.6.2.2 Sensitive Uses in the Project Vicinity

Noise-sensitive receptors in the City include residences, schools, hospitals, churches, and similar uses that are sensitive to noise. Construction and operation of future discretionary projects that

would implement the CAAP Actions and Adaptation Actions, as applicable, could adversely affect nearby noise-sensitive land uses and could place new sensitive receptors in areas of unacceptable noise exposure.

#### 4.6.2.3 Overview of the Existing Noise Environment

In the City of Long Beach, the dominant source of noise is transportation noise, including vehicular traffic, rail, and airport noise. Industrial and mechanical equipment are also contributors to the noise environment in the City, as are intermittent sources such as construction equipment and leaf blowers. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust systems. Airport-related noise levels are primarily associated with aircraft engine noise made while aircraft are taking off, landing, or running their engines while still on the ground. Existing noise sources are further discussed below.

**Ambient Noise Levels.** To assess existing noise levels, the City's Noise Element Existing Conditions Report (2018) includes noise measurements taken in February 2014 and May 2017 that recorded the actual existing noise levels at various locations throughout the City. The noise measurements were recorded at different locations within the City based on several criteria used in the site selection process including, but not limited to, the proximity of a measurement site to sensitive land uses as well as its proximity to significant noise generators. The long-term noise measurements indicate that ambient noise in the City ranges from an average of approximately 58.7 dBA CNEL to 73.9 dBA CNEL. The short-term noise measurements indicate that ambient noise in the City ranges from approximately 51.2 dBA to 76.2 dBA  $L_{eq}$ . Traffic on surrounding roadways was reported as the primary noise source. The noise measurements were recorded at different locations within the City based on the Major Areas of Change identified in the adopted Land Use Element (LUE).

**Existing Roadway Noise Levels.** Motor vehicles with their distinctive noise characteristics are one of the primary sources of noise in Long Beach. The amount of noise varies according to many factors, such as volume of traffic, vehicle mix (percentage of cars and trucks), average traffic speed, and distance from the observer. Major contributing roadway noise sources include Interstates 710 (I-710) and 405 (I-405), State Route 91 (SR-91), Pacific Coast Highway (PCH), and local roadways including Long Beach Boulevard, Santa Fe Avenue, Atlantic Avenue, Alamitos Avenue, 7<sup>th</sup> Street, 2<sup>nd</sup> Street, Ocean Boulevard, and other arterial and collector roadways throughout the City.

**Existing Rail Noise Levels.** Currently, three freight rail lines pass through the City, which are operated by Burlington Northern Santa Fe (BNSF) Railway, Union Pacific Railroad (UPRR), and Pacific Harbor Line Incorporated (PHL). The rail lines run north-south through the west side of the City, and through the northwest corner of the City, around the neighborhood of North Long Beach.

The City is also subject to operational rail noise. The Los Angeles County Metropolitan Transportation Authority (Metro) Rail Blue line (Blue line) passes north to south through Long Beach along Long Beach Boulevard. The Metro service hours are from approximately 4:45 a.m. until 1:00 a.m. on weekdays and from 4:45 a.m. until 2:00 a.m. on weekends. Seven different Metro stations serve local neighborhoods throughout the City. Activity on the Blue line affects the ambient noise environment along the railroad alignment.

Based on Federal Railroad Administration (FRA) crossing inventories for various crossings in the City, typical operations along the main rail line include up to 74 trains per day that range in speed from 5 to 25 miles per hour (mph).

**Existing Stationary Source Noise Levels.** A wide variety of existing stationary sources contribute to noise throughout the City, which includes heating ventilation and cooling (HVAC) mechanical systems, delivery truck idling and loading/unloading activities, and recreational and parking lot activities (such as slamming car doors and people talking). Of these noise sources, noise generated by delivery truck activity typically generates the highest maximum noise levels. Delivery truck loading and unloading activities can result in maximum noise levels of 75 dBA to 85 dBA  $L_{max}$  at 50 ft. Typical parking lot activities, such as people conversing or doors slamming, generate approximately 60 dBA to 70 dBA  $L_{max}$  at 50 ft. Other sources of noise include commercial centers and industrial zones that emit noise during operation. Domestic noise sources, such as leaf blowers, and gas-powered lawn equipment, etc., are common stationary noise sources and can produce noise levels of 70 dBA to 75 dBA at 50 ft.<sup>1</sup>

**Existing Port of Long Beach Noise Levels.** Port of Long Beach (Port) operations noise levels are generally limited to the areas within the perimeter of the Port. Noise associated with the Port includes cranes, vessel horns, forklifts, and truck activities. Due to the distance between the nearest sensitive receptors from daily Port operations on the coast within the Port boundaries, noise is rarely audible at such a large distance. Heavy truck traffic associated with the transport of cargo along the I-710 corridor is the primary source of noise associated with the Port.

**Existing Airport Noise Levels.** Long Beach Airport is a public airport centrally located in the City, approximately 3 miles northeast of Downtown. This airport has limited passenger flights and is restricted by ordinances that minimize airport-related noise. Although commercial flights are restricted, several charters, private aviation, flight schools, law enforcement flights, helicopters, advertising blimps, and planes towing advertising banners still frequently operate from this airport.

Operations at the Long Beach Airport typically occur within the daytime hours of 7:00 a.m. to 10:00 p.m., with the exception of occasional unscheduled landings that occur after 10:00 p.m., and emergency and police helicopter activities. *The Long Beach Airport Community Guide to Aircraft Noise*<sup>2</sup> presents factual information on the City of Long Beach Airport Noise Compatibility Ordinance (Long Beach Municipal Code Chapter 16.43) and Long Beach Airport's efforts to minimize aircraft noise over nearby neighborhoods. While the City is not able to control the flight paths, typical operations include approaches from the southeast of the airport and departures taking off in a northwest direction.

Other airports with aircraft activity that affect the ambient noise environment within the City limits include Los Angeles International Airport and John Wayne Airport. Los Angeles International Airport

<sup>1</sup> Noise Free America. *Citizens for a Quieter Sacramento Rebuttal to the CLCA Position on Leaf Blowers*. Website: <https://noisefree.org/sources-of-noise/lawn-and-garden-equipment/> (accessed August 6, 2021).

<sup>2</sup> Long Beach Airport and the City of Long Beach. *Long Beach Airport Community Guide to Aircraft Noise*. Website: <https://www.longbeach.gov/globalassets/lgb/community-information/noise-abatement/lgb-noisebrochurelow#:~:text=In%20the%20early%20morning%20hours,most%20restrictive%20%2D%2079.0%20dBA%20SENEL> (accessed October 6, 2021).

is located approximately 20 miles northwest of the City, and John Wayne Airport is located approximately 30 miles southwest of the City. Although noise from aircraft activity is occasionally audible throughout the City, the City is not located within the 65 dBA CNEL noise contour of these airports.

#### 4.6.2.4 Existing Vibration Sources

**Vibration Sources.** Major vibration sources in the City include construction activities, rail operations, and heavy vehicle traffic. Other sources which have the potential to cause vibration impacts are aircraft operations, low-frequency music, and some stationary sources. Similar to noise standards, cities can adopt vibration exposure standards regarding the sensitivity of land uses which may be affected. In relation to vibration impacts, there are two factors that are considered to assess the level of impact expected: the potential for damage to a building or structure and the potential of annoyance to people. Also similar to potential noise impacts, the most efficient actions to help reduce vibration impacts occur during the planning and permitting phases of any project or development.

**Construction Activity Vibration.** Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction-related ground-borne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess ground-borne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans. The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.2 to 0.3 millimeters per second (0.008 to 0.012 inches per second), PPV. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels (e.g., people in an urban environment) may tolerate a higher vibration level. Structural damage can be classified as cosmetic only (e.g., minor cracking of building elements) or may threaten the integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to a building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity (e.g., impact pile driving) occurs immediately adjacent to the structure.

**Rail Activity Related Vibration.** Rail operations are potential sources of substantial ground-borne vibration depending on distance, the type and the speed of trains, and the type of railroad track. People's response to ground-borne vibration has been correlated best with the velocity of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is  $1 \times 10^{-6}$  inches per second. RMS, which equals 0 VdB, and 1 inch per second equals 120 VdB. Although not a universally accepted notation, the abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

One of the problems with developing suitable criteria for ground-borne vibration is the limited research into human response to vibration and, more importantly, human annoyance

inside buildings. The United States Department of Transportation Federal Transit Administration (FTA) has developed rational vibration limits that can be used to evaluate human annoyance to ground-borne vibration. These criteria are primarily based on experience with passenger train operations (e.g., rapid transit and commuter rail systems). The main difference between passenger and freight operations is the time duration of exposure to individual events; a passenger train lasts a few seconds whereas a long freight train may last several minutes, depending on speed and length.

**Heavy Vehicles and Buses.** Ground-borne vibration levels from heavy trucks and buses are not normally perceptible, especially if roadway surfaces are smooth. Buses and trucks typically generate ground-borne vibration levels of about 63 VdB at a distance of 25 ft when traveling at a speed of 30 mph. Higher vibration levels can occur when buses or trucks travel at higher rates of speed or when the pavement is in poor condition. Vibration levels below 65 VdB are below the threshold for human perception.

**Other Sources of Vibration Annoyance.** In addition to sources that have vibration impacts which translate through the ground surface between source and receptor, sources which generate high levels of low-frequency noise may generate vibration through air. These sources may include aircraft and helicopter operations, low-frequency music, and other large stationary sources.

### 4.6.3 Regulatory Setting

The following section summarizes the regulatory framework related to noise, including federal, State, and City of Long Beach plans, policies, and standards.

#### 4.6.3.1 Federal Regulations

**United States Environmental Protection Agency.** In 1972, Congress enacted the United States Noise Control Act. This act authorized the United States Environmental Protection Agency (USEPA) to publish descriptive data on the effects of noise and establish levels of sound “requisite to protect the public welfare with an adequate margin of safety.” These levels are separated into health (hearing loss levels) and welfare (annoyance levels). For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to 70 dBA during a 24-hour period of time. At 55 dBA  $L_{dn}$ , 95 percent sentence clarity (intelligibility) may be expected at 11 ft, with no community reaction. However, 1 percent of the population may complain about noise at this level and 17 percent may indicate annoyance. The USEPA cautions that these identified levels are guidelines, not standards.

**Federal Vibration Impact Standards.** Vibration impact criteria included in the Federal Transit Administration’s (FTA) *Transit Noise and Vibration Impact Assessment Manual* (September 2018) are used in this analysis for ground-borne vibration impacts on human annoyance, as shown in Table 4.6.A. The criteria presented in Table 4.6.A account for variation in project types as well as the frequency of events, which differ widely among projects. It is intuitive that when there will be fewer events per day, it should take higher vibration levels to evoke the same community response. This is accounted for in the criteria by distinguishing between projects with frequent and infrequent events, in which the term “frequent events” is defined as more than 70 events per day.

**Table 4.6.A: Ground-Borne Vibration and Noise Impact Criteria**

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 micro-inch/sec)		Ground-Borne Noise Impact Levels (dB re 20 micro-Pascals)	
	Frequent <sup>1</sup> Events	Infrequent <sup>2</sup> Events	Frequent <sup>1</sup> Events	Infrequent <sup>2</sup> Events
<b>Category 1:</b> Buildings in which low ambient vibration is essential for interior operations (i.e., vibration-sensitive manufacturing, hospitals with vibration sensitive equipment, and university research operation).	65 VdB <sup>3</sup>	65 VdB <sup>3</sup>	-- <sup>4</sup>	-- <sup>4</sup>
<b>Category 2:</b> Residences and buildings in which people normally sleep.	72 VdB	80 VdB	35 dBA	43 dBA
<b>Category 3:</b> Institutional land uses with primarily daytime uses.	75 VdB	83 VdB	40 dBA	48 dBA

Source: Federal Transit Administration (FTA). *Transit Noise and Vibration Impact Assessment Manual* (September 2018).

<sup>1</sup> Frequent events are defined as more than 70 events per day.

<sup>2</sup> Infrequent events are defined as fewer than 70 events per day.

<sup>3</sup> This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

<sup>4</sup> Vibration-sensitive equipment is not sensitive to ground-borne noise.

dB = decibels

dBA = A-weighted decibels

HVAC = heating, ventilation, and air conditioning

inch/sec = inch(es) per second

re = relative

VdB = vibration velocity decibels

#### 4.6.3.2 State Regulations

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the State Noise Insulation Standard, it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in the California Code of Regulations (CCR), Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor-ceiling assemblies must block or absorb sound. For limiting noise from exterior noise sources, the noise insulation standards set an interior standard of 45 dBA CNEL in any habitable room with all doors and windows closed. In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA CNEL.

In addition, Chapter 5, Section 5.507 of the California Green Building Standards Code includes nonresidential mandatory measures, which require that buildings exposed to a noise level of 65 dB  $L_{eq}$ -1-hour during any hour of operation shall have building, addition, or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite Sound Transmission Class (STC) rating of at least 45 (or Outdoor/Indoor Transmission Class [OITC] 35) with exterior windows of a minimum STC of 40 (or OITC 30).

The State has established land use compatibility guidelines for determining acceptable noise levels for specified land uses in the State of California General Plan Guidelines as shown in Table 4.6.B, below.<sup>3</sup>

**Table 4.6.B: Community Noise Exposure  $L_{dn}$  or CNEL (dB)**

Land Use Category	Community Noise Exposure $L_{dn}$ or CNEL, dB						
	55	60	65	70	75	80	85
Residential - Low Density Single Family Duplex, Mobile Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Multi-Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Transient Lodging - Hotels, Motels	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Office Buildings - Business, Commercial & Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
<b>Normally Acceptable</b>	<i>Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</i>						
<b>Conditionally Acceptable</b>	<i>New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.</i>						
<b>Normally Unacceptable</b>	<i>New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.</i>						
<b>Clearly Unacceptable</b>	<i>New construction or development should generally not be undertaken.</i>						
<i>Source: California Office of Planning and Research, General Plan Guidelines (2017), Appendix D.</i>							

<sup>3</sup> State of California Governor’s Office of Planning and Research (OPR). 2017. *State of California General Plan Guidelines*. Appendix D: Noise Element Guidelines. July.

#### 4.6.3.3 Local and Regional Policies and Regulations

**City of Long Beach Municipal Code.** The City of Long Beach addresses noise impacts in Title 8: Health and Safety, Chapter 8.80, Noise, and sets regulations to minimize airport noise in Title 16: Public Facilities and Historical Landmarks, Chapter 16.43, Airport Noise Compatibility.<sup>4</sup> The Municipal Code establishes exterior and interior noise standards at receiving land uses and establishes permitted hours of construction activity noise as described below.

Chapter 8.80, Noise, establishes exterior and interior noise limits for the generation of sound within the City. The maximum noise levels vary based on the receiving land use type and the cumulative duration of noise. The ordinance also limits noise generated by construction. The Municipal Code restricts construction activities to weekdays and federal holidays between the hours of 7:00 a.m. and 7:00 p.m. and on Saturdays, restricts construction to between the hours of 9:00 a.m. and 6:00 p.m., except for emergency work. Construction work on Sundays is prohibited unless the City's Noise Control Officer issues a permit. The permit may allow work on Sundays between 9:00 a.m. and 6:00 p.m. Additionally, Chapter 16.43, Airport Noise Compatibility, establishes cumulative noise limits and noise budgets for properties in the vicinity of the Airport. The Municipal Code establishes a goal that incompatible property in the vicinity of the airport shall not be exposed to noise above 65 dBA CNEL.

Loading and unloading activities are also regulated under the noise ordinance. The ordinance restricts loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects between the hours of 10:00 p.m. and 7:00 a.m. and provides noise level provisions for both Exterior Noise Limits and the Interior Noise Limits.

Additionally, the ordinance states that operating or permitting the operation of any device that creates vibration, which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property or at 150 ft from the source if on a public space or public right-of-way is prohibited.

**City of Long Beach General Plan Noise Element.** The adopted City of Long Beach General Plan addresses noise in the Noise Element, which was adopted in 1975 and is currently in the process of being updated.<sup>5</sup> The Noise Element contains goals and policies for noise control and abatement in the City. The goals and policies contained in the Noise Element address noise in relation to land use planning, the noise environment, transportation noise, construction and industrial noise, population and housing noise, and public health and safety. General noise goals for Long Beach aim to attain a

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<sup>4</sup> City of Long Beach. 2019. Municipal Code. February.

<sup>5</sup> City of Long Beach. 1975. Long Beach General Plan Noise Element. Website: <https://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/advance/general-plan/noise-element> (accessed September 17, 2021). Please also note that the City is currently in the process of updating the General Plan Noise Element. Information regarding this process can be found at the following website: <https://www.longbeach.gov/lbds/planning/advance/general-plan/noise-element/> (accessed September 17, 2021).

healthier and quieter environment for all citizens while maintaining a reasonable level of economic progress and development.<sup>6</sup>

The following goals and categorical recommendations (i.e., policies) of the City's Noise Element are applicable to the proposed project:

- GOAL 1:** To improve and preserve the unique and fine qualities of Long Beach and eliminate undesirable or harmful elements.
- GOAL 2:** To develop a well-balanced community offering planned and protected residential districts..., well distributed commercial districts, planned and restricted industrial districts, and a coordinated circulation system for fast, safe, and efficient movement of people and commodities.
- GOAL 3:** To improve the urban environment in order to make Long Beach a more pleasant place to live, work, play, and raise a family.

#### **Goals Related to Transportation Noise**

- GOAL 1:** Recommending a plan for compatible land uses for those portions of Long Beach within transportation noise zones.
- GOAL 2:** Discouraging within transportation noise zones the development of noise sensitive uses that cannot be sufficiently insulated against externally generated noise at reasonable cost.
- GOAL 3:** Developing long range re-allocation of noise sensitive land uses away from transportation noise impact areas.
- GOAL 4:** Providing standards and criteria for noise emissions from transportation facilities.
- GOAL 8:** Reducing the level of noise exposure from surface transportation in problem areas not preempted by State or Federal law.

#### **Goals Related to Construction and Industrial Noise**

- GOAL 1:** To reduce the level of noise exposure to the population caused by demolition and construction activities.

#### **Recommendations Related to Development Policies**

- Policy 4.4:** No future development shall be allowed which causes other developments to become incompatible with their noise environments.

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<sup>6</sup> City of Long Beach. 1975. Long Beach General Plan Noise Element. Website: <http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3051> (accessed August 6, 2021). Please also note that the City is currently in the process of updating the General Plan Noise Element. Information regarding this process can be found at the following website: [http://www.lbds.info/noise\\_element\\_update/](http://www.lbds.info/noise_element_update/).

**City of Long Beach General Plan Land Use Element.** The City’s Land Use Element (2019) formulated the following broad-range goals guiding land use in the City: manage growth, encourage economic development, revitalize the Downtown area, allow for the construction of new housing, encourage the development of affordable housing, emphasize strong neighborhoods, maintain existing public facilities, and maintain and/or improve the circulation system. The Land Use Element introduced the concept of “PlaceTypes,” which replaced the prior approach of segregating property within the City through traditional land use designations and zoning classifications. The following policies are applicable to the analysis of noise impacts:

- **LU Policy 16-6:** Work with regional agencies, residents, and businesses to preserve established homes, businesses, and open spaces. Limit the exposure of toxic pollutants and vehicle noise. Minimize traffic issues impacting residential neighborhoods resulting from freeway expansion and other similar large-scale projects.
- **LU Policy 16-8:** Require an acoustical analysis prior to project approval for projects subject to CEQA review, for all noise sensitive projects located in an area with noise levels greater than 60 dBA CNEL and/or within 500 feet of a freeway. All new residential land uses shall be designed to maintain a standard of 45 dBA CNEL or less in building interiors, consistent with the General Plan. Noise reduction measures to achieve this noise level could include, but are not limited to, forced air ventilation so that windows can remain closed and/or upgraded wall and window assemblies.
- **LU Policy 16-9:** The Los Angeles County Metropolitan Transportation Authority (Metro) shall be notified of any planned development or construction activities on properties that are within 100 feet of Metro right-of-way. Metro must be provided the opportunity early in the development process to review plans and comment, if necessary, to ensure that the project does not impact the safe operation of Metro transit service and/or compromise Metro infrastructure. As the project design advances, Metro may review construction drawings and work plans for potential impacts to the Metro system and to ensure safe operation of cranes, overhead loads, excavation, drainage, worker safety, and other construction activities. Projects immediately adjacent to Metro right-of-way may be required to include a setback from the Metro property line and to accommodate construction and maintenance activities on private property. Developers should not assume that Metro will grant a right-of-entry permit for construction or maintenance activities on Metro property. For this reason, Metro recommends a minimum five-(5) foot setback from the adjacent Metro property line. At the City’s discretion and Metro’s request, a noise easement may be required to deed Metro the right to cause in said easement noise, vibrations and other effects that may be caused by the operation of transit vehicles.

#### 4.6.4 Methodology

This analysis describes existing noise and vibration conditions, discusses the characteristics of sound, sets forth criteria for determining the significance of noise and vibration impacts, and estimates the potential noise and vibration impacts resulting from the implementation of the proposed project, as a result of the CAAP Actions and Adaptation Actions to meet the City’s GHG reduction targets and lessen the impacts of climate change, as well as text amendments to the General Plan Safety Element. Implementation of CAAP Actions and Adaptation Actions by the City, other agencies, or private developers would be subject to review to determine if a project-level CEQA analysis is

required. The CAAP will also be implemented via future development projects through the CAAP Checklist, provided in Appendix D, which translates the CAAP Actions and Adaptation Actions into project-level measures, to ensure future discretionary projects are consistent with the proposed CAAP's goals and policies. The proposed CAAP is a comprehensive planning document outlining the City's proposed approach both to address climate impacts in Long Beach and to reduce the City's impact on the climate by reducing future greenhouse gas (GHG) emissions. The proposed CAAP provides a framework to reduce the City's GHG footprint (climate action) and ensure that the community and physical assets are better protected from the impacts of climate change. The proposed CAAP includes a roadmap for implementing new policies, programs, incentives, requirements, projects, and initiatives in the immediate future, as well as longer-term actions that will need to be studied further to inform implementation projects while monitoring how the climate continues to change, and evaluating the effectiveness of the actions taken. Proposed updates to the Safety Element will incorporate climate adaptation and resiliency considerations and strategies associated with the CAAP.

#### **4.6.5 Analysis Approach**

Site-specific subsequent activities or projects that incorporate CAAP Actions and Adaptation Actions, as applicable, their associated locations, and physical effects on the environment related to noise and vibration are not known at this time. Therefore, this analysis uses a programmatic approach in evaluating possible noise and vibration impacts of implementation of the CAAP and the Safety Element Update.

##### **4.6.5.1 Characteristics of Sound**

Noise is usually defined as unwanted sound and consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally related to annoyance, while loudness can affect our ability to hear through hearing damage. Pitch is the number of complete vibrations, or cycles per second, of a wave, resulting in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves, combined with the reception characteristics of the human ear. Sound pressure refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be measured precisely with instruments. The project analysis defines the noise environment of the planning area in terms of sound pressure levels and the project's effect on sensitive land uses.

##### **4.6.5.2 Measurement of Sound**

Sound pressure is measured through the A-weighted scale to correct for the relative frequency response of the human ear. Unlike linear units (e.g., inches or pounds), decibels are measured on a logarithmic scale representing points on a sharply rising curve. For example, 10 decibels (dB) are 10 times more intense than 1 dB; 20 dB are 100 times more intense than 1 dB; and 30 dB are 1,000 times more intense than 1 dB. Thirty decibels (30 dB) represent 1,000 times as much acoustic energy as 1 dB. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear

as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 A-weighted decibels (dBA) (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dBA for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations), the sound decreases 3 dBA for each doubling of distance over hard surfaces, and the sound decreases 4.5 dBA for each doubling of distance in a relatively flat environment with absorptive vegetation.

There are many ways to measure noise for various time periods; an appropriate ambient noise metric affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level ( $L_{eq}$ ) is the total sound energy of time-varying noise over a sample period. However, the predominant metrics for communities in the State of California are the  $L_{eq}$  and the Community Noise Equivalent Level (CNEL) or the day-night average level ( $L_{dn}$ ) based on dBA. The CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly  $L_{eq}$  for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as evening hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). The  $L_{dn}$  is similar to the CNEL scale, but without the adjustment for events occurring during the evening hours. The CNEL and the  $L_{dn}$  are normally within 1 dBA of each other and are considered interchangeable.

Other noise level metrics that are important when assessing the annoyance factor include the maximum noise level ( $L_{max}$ ), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by  $L_{max}$ , which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with percentile noise levels, in noise ordinances for enforcement purposes. For example, the  $L_{10}$  noise level represents the noise level exceeded 10 percent of the time during a stated period. The  $L_{50}$  noise level represents the median noise level. Half of the time, the noise level exceeds this median noise level, and half of the time, it is less than this median noise level. The  $L_{90}$  noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the  $L_{eq}$  and  $L_{50}$  are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to changes of 3 dBA or greater since this level has been found to be the lowest audible change perceptible to humans in outdoor environments. The second category, potentially audible, refers to changes in the noise level between 1 and 3 dBA, which are only noticeable in laboratory environments. The last category includes changes in noise levels of less than 1 dBA, which are inaudible to the human ear.

#### 4.6.5.3 Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure (typically more than 8 hours, as defined by the Occupational Safety and Health Administration [OSHA]) to noise levels higher than 85

dBa. Exposure to high noise levels affects the entire physiological system, with prolonged noise exposure in excess of 75 dBA increasing body tensions (thereby, affecting blood pressure and functions of the heart and the nervous system). In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160 to 165 dBA will result in dizziness or loss of equilibrium.

#### 4.6.5.4 Vibration

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernible, but without the effects associated with the shaking of a building there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

To distinguish vibration levels from noise levels, the unit is written as “vibration velocity decibels” (VdB). Human perception to vibration starts at levels as low as 67 VdB and sometimes lower. Annoyance due to vibration in residential settings starts at approximately 70 VdB. Ground-borne vibrations are almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of the building, the motion does not provoke the same adverse human reaction.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile driving and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet (ft) of the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 ft.<sup>7</sup> When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path usually will be greater than ground-borne noise.

Ground-borne vibration has the potential to disturb people as well as damage buildings. It is not uncommon for construction processes such as blasting and pile driving to cause vibration of sufficient amplitudes to damage nearby buildings.<sup>8</sup> Ground-borne vibration is usually measured in

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<sup>7</sup> Federal Railroad Administration. 2012. *High-Speed Ground Transportation Noise and Vibration Impact Assessment*. September.

<sup>8</sup> Ibid.

terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV).

Factors that influence ground-borne vibration and noise include the following:

- **Vibration Source:** Vehicle suspension, wheel types and condition, track/roadway surface, track support system, speed, transit structure, and depth of vibration source
- **Vibration Path:** Soil type, rock layers, soil layering, depth to water table, and frost depth
- **Vibration Receiver:** Foundation type, building construction, and acoustical absorption

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground compared to at the ground surface. In addition, soil conditions are known to have a strong influence on the levels of ground-borne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock.

Experience with ground-borne vibration indicates that: (1) vibration propagation is more efficient in stiff, clay soils than in loose, sandy soils; and (2) shallow rock seems to concentrate the vibration energy close to the surface and can result in ground-borne vibration problems at large distances from the source. Factors such as layering of the soil and depth to the water table can have significant effects on the propagation of ground-borne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.

In extreme cases, excessive ground-borne vibration has the potential to cause structural damage to buildings. For buildings considered of particular historical significance or that are particularly fragile structures, the damage threshold is approximately 96 VdB; the damage threshold for other structures is 100 VdB.<sup>9</sup>

#### 4.6.6 Thresholds of Significance

The following thresholds of significance are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact related to noise if it would:

**Threshold 4.6.1:** Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

**Threshold 4.6.2:** Generate excessive ground-borne vibration or ground-borne noise levels; or

**Threshold 4.6.3:** For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles

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<sup>9</sup> Harris, C.M., 1998. *Handbook of Acoustical Measurements and Noise Control*.

of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

#### 4.6.7 Project Impacts

**Threshold 4.6.1:** **Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**CAAP: Less Than Significant Impact.**

##### **Short-Term Construction-Related Noise Impacts.**

**Less Than Significant Impact.** The proposed project includes the proposed CAAP, which was included as a mitigation measure in the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development consistent with the adopted LUE. The proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. Implementation of certain CAAP Actions by the City or other agencies, such as performance of municipal energy and water audits (BE-7), may not be subject to discretionary approval and project-level CEQA review. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and subject to CEQA as required. The proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) for future discretionary projects to demonstrate consistency with this adopted plan and allow for streamlining in place of a project-level GHG emissions analysis pursuant to CEQA. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions to achieve the City's GHG emissions targets and to minimize the impacts of climate change through CAAP Adaptation Actions. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a future discretionary project does not include Tier 1 measures, equivalent measures for GHG emission reductions backed by substantial evidence must be provided for the project to utilize the Checklist in lieu of a project-level GHG analysis.

Tier 1 measures are required because they were quantified as part of the City's GHG reduction pathway for new development. Tier 1 measures or equivalent strategies would also be required for other improvements to existing development to demonstrate consistency with the goals and policies of the CAAP. Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. There are no Tier 2 measures identified for the Building and Energy sector. Implementation of these measures would support the CAAP Actions for Building and Energy by requiring increased access to and incentives for clean electricity (BE-1 and BE-5), and increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures. Energy improvements implemented for future developments through the CAAP Checklist, such as rooftop solar and electric vehicle charging stations, are not

anticipated to result in substantial noise-generating construction activities. Other Building and Energy CAAP Actions supported by the measures listed on the CAAP Checklist would increase energy efficiency of existing facilities, electrify new residential and commercial buildings, and reduce emissions from local oil and gas extraction. Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 2 measures for the Transportation sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service (T-1), providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5), and integrating Senate Bill (SB) 743 to address VMT (T-7 and T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Similar to the Building and Energy CAAP Actions above, future projects that include the development of new transit facilities and increased residential, commercial, and mixed-use development near transit facilities would be analyzed for consistency with the adopted LUE, Mobility Element, and PlaceTypes and would be subject to project-level CEQA review. Tier 1 measures required for the Waste sector include the recycling of appropriate materials and organics waste diversion. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion. Implementation of the Tier 1 measures would support CAAP Actions for Waste by requiring recycling compliance (W-1) and organic waste diversion (W-2). Such actions would not require any construction activities, but rather are programs that would be implemented with existing facilities. Other CAAP Actions for Waste (W3 and W4) would expand communitywide participation in organic waste collection and diversion. Any future facilities or other development needed to support these actions would be subject to project-level CEQA review.

As described above, there are several measures to support the CAAP Actions that would be implemented with future discretionary projects, which would involve retrofits to existing buildings, new development near transit, and changes to the existing streetscape such as expanded bicycle and pedestrian networks. Several measures to support the CAAP Actions include improvements or programs that would apply to existing buildings, facilities, and infrastructure within the City, and no construction or construction-related noise would occur. All future discretionary projects either to implement CAAP strategies and/or that utilize the CAAP Checklist to achieve the City's GHG emissions targets would be reviewed under CEQA and would be required to undergo the Site Plan Review process. Construction activities associated with future discretionary projects implementing the measures to support the CAAP Actions could result in temporary or periodic increases in ambient noise levels at development sites throughout the City. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These phases would change the character of the noise generated on project sites and, therefore, the noise levels surrounding the sites as construction progresses. Table 4.6.C lists typical maximum noise levels for various pieces of construction equipment, as measured at a distance of 50 ft from the operating equipment.

**Table 4.6.C: Noise Emission Reference Levels and Usage Factors**

Equipment Description	Acoustical Usage Factor <sup>1</sup>	Predicted L <sub>max</sub> at 50 feet (dBA, slow) <sup>2</sup>	Actual Measured L <sub>max</sub> at 50 feet (dBA, slow) <sup>3</sup>
All Other Equipment > 5 HP	50	85	N/A <sup>4</sup>
Backhoe	40	80	78
Compactor (ground)	20	80	83
Compressor (air)	40	80	78
Crane	16	85	81
Dozer	40	85	82
Dump Truck	40	84	76
Excavator	40	85	81
Flat Bed Truck	40	84	74
Front-End Loader	40	80	79
Generator	50	82	81
Gradall	40	85	83
Grader	40	85	N/A
Impact Pile Driver	20	95	101
Man Lift	20	85	75
Paver	50	85	77
Pickup Truck	40	55	75
Roller	20	85	80
Scraper	40	85	84
Tractor	40	84	N/A

Source: Federal Highway Administration (FHWA). *Construction Noise Handbook*, Table 9.1 (August 2006).

Note: Noise levels reported in this table are rounded to the nearest whole number.

- Usage factor is the percentage of time during a construction noise operation that a piece of construction equipment is operating at full power.
- Maximum noise levels were developed based on Specification (Spec.) 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston’s Noise Code for the “Big Dig” project.
- The maximum noise level was developed based on the average noise level measured for each piece of equipment during the CA/T program in Boston, Massachusetts.
- Since the maximum noise level based on the average noise level measured for this piece of equipment was not available, the maximum noise level developed based on Spec 721.560 would be used.

dBA = A-weighted decibel

L<sub>max</sub> = maximum instantaneous noise level

N/A = not applicable

Noise-sensitive receptors include residences, schools, hospitals, churches, and similar uses that are sensitive to noise. Construction of future discretionary projects that utilize the CAAP Checklist could adversely affect nearby noise-sensitive land uses. All future discretionary projects that implement the CAAP would be analyzed for consistency with the growth projections contemplated in the adopted LUE and analyzed in the 2019 Certified Program EIR. In addition, a list of construction best management practices (BMPs) are outlined in Mitigation Measure (MM) NOI-1 from the 2019 Certified Program EIR and would be applied to future discretionary projects as applicable. MM NOI-1 of the 2019 Certified Program EIR is a project-level mitigation measure and therefore does not apply to the proposed project but would apply to future projects that implement the CAAP Actions.

Where there is the potential for construction-related noise impacts, they would be routinely addressed through project-level environmental review and permitting. In addition, all future discretionary projects would be subject to the standards of the City’s Municipal Code. Construction noise is permitted by the City Municipal Code when activities occur between the hours of 7:00 a.m. and 7:00 p.m. on weekdays and federal holidays, and between 9:00 a.m. and 6:00 p.m. on Saturdays. No construction would be permitted on Sundays. Construction noise impacts are

currently exempt from specific noise levels limits. Specific construction projects that may occur with implementation of the measures to support the CAAP Actions, including location and noise levels at surrounding sensitive receptors, are unknown at this time. Future discretionary projects including those that utilize the CAAP Checklist would be reviewed on a project-by-project basis, and mitigation would be identified during project-level review as appropriate. It should be noted that the construction of these future discretionary projects does not constitute the CAAP project; they are the projects that would be incorporating measures to support the CAAP Actions, which in and of themselves do not involve the construction of buildings. Therefore, the proposed project would result in a less than significant impact related to substantial increases in ambient noise levels.

As described above, in addition to the Tier 1 and Tier 2 measures to support the CAAP Actions related to Building and Energy, Transportation, and Waste that would apply to future development to achieve the GHG emissions targets of the CAAP, the proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. The Adaptation Actions provide general strategies that may be needed to lessen climate change impacts based on the CAAP Vulnerability Assessment. While the Adaptation Actions would not be required to meet the City's GHG reduction targets, Adaptation Actions are listed in the CAAP Checklist for future discretionary projects to incorporate, as applicable, and to demonstrate consistency with the overall goals and strategies of the CAAP. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as future projects or improvements that would lessen the impacts of climate change on critical infrastructure and public facilities. The proposed CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact that would be accomplished through implementation of the Adaptation Actions. There is not sufficient information at this time to analyze potential future physical improvements that may be needed to implement the proposed framework of Adaptation Actions in the CAAP as specific projects and locations are unknown. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future improvements would be analyzed on a project level pursuant to CEQA and for consistency with the Noise Ordinance. Therefore, potential construction noise impacts of the Adaptation Actions would be less than significant, and no mitigation is required.

#### **Long-Term Stationary-Source Noise Impacts.**

**Less Than Significant Impact.** Approval of the proposed CAAP would not result in the physical development of any buildings or structures, nor would it grant any entitlements for development.

As described above, Tier 1 measures to support the CAAP Actions related to Building and Energy are designed to ensure that future discretionary projects contribute to a reduction in GHG emissions, such as through increased use of zero-carbon electricity and/or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Other Tier 1 measures would support Building and Energy CAAP Actions by requiring energy efficient improvements and increased use of solar power and clean energy sources that would be constructed on existing or proposed buildings (e.g., new rooftop solar or retrofits). Most of these new improvements to facilitate CAAP Actions would be constructed within or on existing or proposed buildings (e.g., rooftops) and are not expected to result in additional stationary noise impacts. Furthermore, green energy and energy-efficient retrofits may reduce stationary operational noise from existing energy generators.

Measures to support the CAAP Actions related to Transportation include expansion of the bicycle and pedestrian network and other measures to reduce vehicle miles traveled (VMT), and increased housing and employment along major transit corridors and increased density and mixing of land uses. However, any future discretionary projects that would implement measures to support the CAAP Actions would be consistent with the adopted LUE as analyzed in the 2019 Certified Program EIR and would therefore, not result in additional impacts related to the exposure of sensitive land uses to transit corridor noise. In addition, several General Plan policies are related to the reduction of transportation-related noise within the City. Future discretionary projects that implement measures to support the CAAP Actions related to increased transit, bicycle, and pedestrian facilities would support the reduction in VMT and subsequently reduce transportation-related noise within the City. CAAP Actions and measures to support actions related to Waste include, but are not limited to, actions that encourage recycling compliance and expanded organic waste collection, which may result in new facilities for organic waste processing. However, such new facilities would be subject to their own project-level CEQA review.

All future discretionary projects that implement the project-level measures in the CAAP Checklist to achieve the City's GHG emissions targets or demonstrate consistency with the goals and policies of the CAAP would be reviewed under CEQA and would be required to undergo the Site Plan Review process. Additionally, all future development projects would be subject to applicable local land use and noise compatibility standards. The City's Municipal Code addresses noise in Title 8: Health and Safety, Chapter 8.80, Noise. The primary objective of Chapter 8.80 is to establish exterior and interior noise standards at receiving land uses. Therefore, implementation of the proposed project would not expose persons to noise levels in excess of the City's Municipal Code, and no mitigation would be required.

As described above, in addition to the Tier 1 and Tier 2 measures to support the CAAP Actions related to Building and Energy, Transportation, and Waste that would apply to future discretionary projects to achieve the GHG emissions target of the CAAP, the proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. While the incorporation of Adaptation Actions strategies would not be required to meet the City's GHG reduction targets, they are included on the CAAP Checklist for future discretionary projects to implement as applicable, and could help lessen the impacts of climate change on future development projects and the community. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessen the impacts of climate change on critical infrastructure and public facilities. The CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact that would be accomplished through implementation of the Adaptation Actions. There is not sufficient information at this time to analyze potential future physical improvements that are suggested as Adaptation Actions in the CAAP as specific projects and locations are unknown. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future improvements would be analyzed on a project level pursuant to CEQA and for consistency with the Noise Ordinance. Therefore, potential operational noise impacts of the Adaptation Actions would be less than significant at a program level, and no mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in noise impacts. Therefore, the Safety Element Update would have no impact related to increases in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and no mitigation is required.

**Threshold 4.6.2: Would the project generate excessive ground-borne vibration or ground-borne noise levels?**

**CAAP: Less Than Significant Impact.** As discussed previously, the proposed project is a policy/planning action and approval of the CAAP at a programmatic level does not constitute approval of physical development necessary to implement CAAP Actions that would require project-level CEQA review, nor would it grant any entitlements for development that would result in ground-borne vibration or noise. As described above, the proposed project includes Tier 1 measures to support the CAAP Actions related to Building and Energy designed to ensure that future discretionary projects reduce GHG emissions, such as through increased use of clean electricity or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Other Tier 1 measures would support Building and Energy CAAP Actions by requiring energy efficiency improvements and the increased use of solar power and clean electricity sources. The CAAP Checklist also includes Tier 1 and Tier 2 measures to support Transportation CAAP Actions including expansion of the bicycle and pedestrian network and other measures to reduce VMT, increased housing and employment along major transit corridors, and increased density and mixing of land uses. Measures to support the CAAP Actions for Waste include encouraging recycling compliance and expanded organic waste collection.

As noted above, most of the measures to support the CAAP Actions that would be implemented as part of future discretionary projects would be constructed within or on existing development (e.g., rooftop solar, bicycle amenities). These minor improvements to existing structures would not require construction methods that would generate excessive ground-borne vibration or ground-borne noise levels. In addition, CAAP Actions and measures to support actions related to Waste may result in new facilities for organic waste processing that would support organic waste collections and processing; however, such new facilities would be subject to their own project-level CEQA review to determine whether these improvements would result in an increase in the number of large trucks or add any sources of permanent operational ground-borne vibration.

Although construction details are unknown, construction of future discretionary projects that would implement measures to support the CAAP Actions, such as projects that would increase employment and residential development along primary transit corridors (T-6), may require the use of impact tools that are typically associated with substantial vibrational impacts, such as pile drivers, jackhammers, impact hammers, and earth compaction tools. The operation of heavy-duty construction equipment could generate localized ground-borne vibration in the vicinity of the construction activity. Depending on the proximity of construction of future projects to receptors and existing structures, construction activities could generate excessive ground vibration and potentially

disturb nearby receptors or damage surrounding existing structures. Construction of mixed-use and transit-oriented development is likely to be in proximity to existing structures. Construction-generated ground-borne vibration has the potential to structurally damage surrounding structures.

All future discretionary projects that implement the CAAP would be analyzed for consistency with the growth projections contemplated in the adopted LUE and analyzed in the 2019 Certified Program EIR. In addition, as discussed above, a list of construction BMPs are outlined in MM NOI-1 from the 2019 Certified Program EIR. These BMP measures are identified for future project developments that may be implemented under the proposed project that would require environmental evaluation under CEQA. MM NOI-1 of the 2019 Certified Program EIR is a project-level mitigation measure and therefore does not apply to the proposed project but would apply to future projects that implement the CAAP.

Where there is the potential for ground-borne vibration impacts, they would be routinely addressed through project-level environmental review and permitting. All future discretionary projects that would utilize the CAAP Checklist would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted, including the Noise Ordinance requirements. Chapter 8.80 of the City's Noise Ordinance limits the operation of any device that creates vibration, including pile driving, that is above the vibration perception threshold. Future discretionary project that implement measures to support the CAAP Actions would be reviewed on a project-by-project basis, and mitigation would be identified during project-level review as appropriate. It should be noted that the construction of these future discretionary projects does not constitute the CAAP project; they are the projects that would be incorporating measures to support the CAAP Actions, which in and of themselves do not involve the construction of buildings. Future projects that do not utilize the CAAP Checklist but that are implementing CAAP Actions would also be subject to the City's Noise Ordinance. Therefore, impacts related to excessive ground-borne vibration or ground-borne noise levels would be less than significant. No mitigation is required.

The proposed CAAP also identifies Adaptation Actions, which provide general strategies for potential future projects that may lessen climate change in particular locations throughout the City. While the incorporation of Adaptation Actions strategies would not be required to meet the City's GHG reduction targets, they are included on the CAAP Checklist for future discretionary projects to implement as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessening the impacts of climate change on critical infrastructure and public facilities. The CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact. There is not sufficient information at this time to analyze potential future physical improvements that may be needed to implement the proposed framework of Adaptation Actions in the CAAP because there is not enough information to evaluate specific projects. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future discretionary projects would be analyzed on a project level pursuant to CEQA. Therefore, potential vibration impacts of the Adaptation Actions would be less than significant, and no mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in noise or vibration impacts. Therefore, the Safety Element Update would have no impact related to the generation of excessive ground-borne vibration or ground-borne noise levels, and no mitigation is required.

**Threshold 4.6.3:**       **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

**CAAP: Less Than Significant Impact.** As previously described, aircraft noise in the City of Long Beach is primarily related to aircraft operations at Long Beach Airport, Los Angeles International Airport, and John Wayne Airport. Long Beach Airport is located centrally within the City, approximately 3 miles northeast of Downtown.

As discussed previously, the proposed project is a policy/planning action and approval of the CAAP at a programmatic level does not constitute approval of physical development necessary to implement CAAP Actions that would require project-level CEQA review, nor would it grant any entitlements for development. As described above, the proposed project includes Tier 1 measures to support the CAAP Actions related to Building and Energy designed to ensure that future discretionary projects reduce GHG emissions, such as through the increased use of clean electricity or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Other tier 1 measures would support Building and Energy CAAP Actions by requiring energy efficiency improvements and the increased use of solar power and clean electricity sources. The CAAP Checklist also includes Tier 1 and Tier 2 measures to support Transportation CAAP Actions including expansion of the bicycle and pedestrian network and other measures to reduce VMT, increased housing and employment along major transit corridors, and increased density and mixing of land uses. Measures to support CAAP Actions for Waste include encouraging recycling compliance and expanded organic waste collection.

Implementation of the CAAP Actions and Adaptation Actions may involve new or remodeled construction activities that may generate a limited number of new employees or residents that may be located in proximity to the Long Beach Airport, exposing people residing or working in these areas to excessive noise levels from aviation activities. As noted previously, all future discretionary projects would be analyzed for consistency with the growth projections contemplated in the adopted LUE and analyzed in the 2019 Certified Program EIR. Adoption of the CAAP as a policy action is intended to allow the City to meet its GHG reduction goals with the development anticipated in the adopted LUE and would not present additional impacts as it does not include any additional development. Additionally, all future discretionary projects that utilize the project-level measures in the CAAP Checklist to achieve the City's GHG emissions targets or demonstrate consistency with the goals and policies of the CAAP would be reviewed under CEQA, would be required to undergo the Site Plan Review process, and would be subject to applicable federal, State, and local aviation safety regulations. As stated in Section 16.43.050 of the Municipal Code, it is the

goal of the City that Incompatible Property in the vicinity of the Airport shall not be exposed to noise above 65 dBA CNEL. Therefore, the proposed project would not result in the exposure of sensitive receptors to excessive noise levels from aircraft noise sources. No mitigation measures are required.

The proposed CAAP also identifies Adaptation Actions, which provide general strategies and potential future projects that may lessen climate change in particular locations throughout the City. While Adaptation Actions strategies would not be required to meet the City's GHG reduction targets, they are included on the CAAP Checklist for future discretionary projects to implement as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessening the impacts of climate change on critical infrastructure and public facilities. The CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact. There is not sufficient information at this time to analyze potential future physical improvements that may be needed to implement the proposed framework of Adaptation Actions in the CAAP because there is not enough information to evaluate specific projects. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future development would be analyzed on a project level pursuant to CEQA.

With compliance with local and State regulations and requirements, the proposed project would have less than significant impacts related to the exposure of sensitive receptors to excessive noise levels from aircraft noise sources. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in noise impacts. Therefore, the Safety Element Update would have no impacts related to the exposure of sensitive receptors to excessive noise levels from aircraft noise sources. No mitigation is required.

#### 4.6.8 Level of Significance Prior to Mitigation

The proposed project would result in less than significant impacts related to noise, and no mitigation is required.

#### 4.6.9 Compliance Measures and Project Design Features

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action, does not include any project design features related to noise.

#### 4.6.10 Mitigation Measures

No mitigation measures related to noise are required for the proposed project.

#### 4.6.11 Level of Significance after Mitigation

There would be no significant unavoidable adverse impacts related to noise, and no mitigation is required.

#### 4.6.12 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects. A cumulative noise or vibration impact would occur if multiple sources of noise and vibration combine to create impacts in close proximity to a sensitive receptor. Therefore, the cumulative area for noise impacts includes the planning area, which covers the entire 50 square miles within the limits of the City of Long Beach and any sensitive receptors within the planning area.

Cumulative growth within the City could result in temporary or periodic increases in ambient noise levels at development sites throughout the City. As described previously, the proposed project does not include physical improvements or development. The proposed project would be implemented through future projects for which there is not yet enough information to analyze and that would be subject to project-level CEQA analysis, and through the application of the CAAP Checklist (Appendix D) to future development projects to ensure incorporation of CAAP strategies and to meet the City's GHG reduction target. In order to demonstrate consistency with the proposed CAAP, future discretionary projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions, achieve the City's GHG emissions targets, and demonstrate consistency with the goals and policies of the CAAP. Measures to support the CAAP Actions would be implemented with future discretionary projects and may include construction of new facilities or retrofits to existing buildings, new transit and waste facilities, and changes to the existing streetscape. Although the locations of these future discretionary projects are unknown, if the construction of a nearby project occurs at the same time as the construction of another project implementing Tier 1 or Tier 2 measures or Adaptation Actions, cumulative construction noise effects could occur. Where there is the potential for these cumulative impacts, they would be addressed through project-level CEQA review and would be analyzed for consistency with the growth projections contemplated in the adopted LUE and analyzed in the 2019 Certified Program EIR. Construction activities associated with future discretionary projects that implement the measures to support the CAAP Actions or Adaptation Actions would be subject to compliance with the project-level MM NOI-1 identified in the 2019 Certified Program EIR and the City's Noise Ordinance to ensure that noise impacts from construction sources are reduced.

Additionally, as stated previously, the measures to support the CAAP Actions and Adaptation Actions would be implemented with future discretionary projects that would be evaluated for consistency with the adopted LUE. The overall intent of the CAAP as a mitigation measure of the 2019 Certified Program EIR is to allow for the City to meet its GHG reduction targets while accommodating the development anticipated in the adopted LUE. Potential future discretionary projects that would implement the measures to support the CAAP Actions and Adaptation Actions would result in only minor employment increases and associated population growth already anticipated by the adopted LUE. Furthermore, the CAAP Actions include encouraging increased housing and employment along major transit corridors and increased density and mixing of land uses. Therefore, future projects

that implement measures consistent with these CAAP Actions would also be consistent with the adopted LUE and such development would not result in additional impacts related to the exposure of sensitive land uses to transit corridor noise beyond those considered by the 2019 Certified Program EIR. Additionally, the proposed CAAP would not generate substantial increases in traffic or a cumulatively considerable contribution to regional noise conditions as it does not result in physical development. Measures to support the CAAP Actions related to transportation would also serve to reduce transportation noise within the City. Therefore, implementation of the proposed project is less than cumulatively significant, and no mitigation is required.

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## 4.7 POPULATION AND HOUSING

This section provides a discussion of the existing population, housing, and employment characteristics in the City of Long Beach (City), as well as an analysis of potential impacts that could result from implementation of the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update (proposed project) with regard to population, housing, and employment. This section is based on sources of demographic information provided by agencies including the Southern California Association of Governments (SCAG), the State of California Department of Finance (DOF), the United States Census Bureau (U.S. Census Bureau) American Community Survey (ACS), the 2029 Housing Element (2022) of the City's General Plan, the City's General Plan Land Use Element (2019), and the United States Department of Housing and Urban Development (HUD) Assessment of Fair Housing (AFH) (2016), as well as the City's own records. As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element update and is considered a policy/planning action. The proposed project is a policy plan and in and of itself does not include physical improvements or development. Given the lack of known detail as to the timing, location, and exact nature of future projects needed to implement the CAAP, impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Therefore, the analysis in this Subsequent Environmental Impact Report (SEIR) focuses on the potential impacts from the measures included in the CAAP Consistency Review Checklist (CAAP Checklist) required for future discretionary projects, as well as the potential programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.7.1 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this SEIR. One comment letter included comments related to population and housing.

The letter from SCAG received on September 24, 2021, suggested that the Draft SEIR provide a discussion of the proposed project's consistency with the goals of the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal. Connect SoCal is a long-range visioning plan that balances future mobility and housing needs with goals for the environment, economy, social equity, environmental justice, and public health. An analysis of the project's consistency with SCAG's regional growth forecasts is provided in Section 4.7.7 below. In addition, please refer to Section 4.5, Land Use and Planning, for a detailed consistency analysis of the proposed project with the goals and policies of Connect SoCal.

### 4.7.2 Existing Environmental Setting

#### 4.7.2.1 Population, Housing, and Employment Trends in the City and County

The planning area includes the entire 50 square miles within the City's jurisdictional limits. In its existing condition, the City is largely urbanized and includes a range of housing types and land uses that provide housing and employment opportunities to its residents.

**Population Growth.** According to the population estimates by the 2019 ACS, the estimated population numbers for the City of Long Beach and the County of Los Angeles in 2019 were 462,645 and 10,014,009 persons, respectively.<sup>1</sup> These represent a decrease from the existing conditions at the time of the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) that utilized the data from the 2017 ACS, which reported estimates of 469,459 and 10,163,507 persons, respectively.

As shown below in Table 4.7.A, SCAG projections included in the Final 2020–2045 RTP indicate that the City’s 2016 population was estimated to be 470,900. The City’s population is anticipated to grow by approximately 3.9 percent (approximately 18,700 persons and 0.16 percent per year) between 2016 and 2045. The percentage of growth for the City anticipated in the 2019 Certified Program EIR was also 3.9 percent between 2015 and 2040. The County is expected to experience a higher increase of approximately 15.4 percent (approximately 1,564,000 persons and 0.53 percent per year) between 2016 and 2045. The percentage of growth for the County anticipated in the 2019 Certified Program EIR was 13.3 percent between 2015 and 2040.

**Table 4.7.A: Population Forecasts for the City of Long Beach and the County of Los Angeles**

	2016	2045	Change 2016–2045	Percentage of Change 2016–2045	No. of Years	Percentage of Change per Year
City of Long Beach	470,900	489,600	18,700	3.9%	25	0.16%
Los Angeles County	10,110,000	11,674,000	1,564,000	15.4%	25	0.61%

Source: SCAG, Connect SoCal Demographics and Growth Forecast (September 2020).  
SCAG = Southern California Association of Governments

As identified in Table 4.7.A, recent growth trends projected by SCAG suggest that population in the County is anticipated to increase at a faster rate through horizon year 2045 than growth projections for the City. The projected increases in population in the County are likely attributed to the net migration of individuals moving into the region due to the recent increase in job availability, whereas the lower rate of population growth in the City may be an indicator of the demand for additional employment opportunities in the City.

**Housing.** As illustrated by Table 4.7.B, the City is anticipated to experience an approximately 17.5 percent increase in the number of households between 2016 and 2045 (an additional 29,600 housing units). The percentage of growth for the City anticipated in the 2019 Certified Program EIR was 17.4 percent between 2015 and 2040. The County is anticipated to experience a higher rate of increase in households than the City at approximately 24.1 percent between 2016 and 2045. The percentage of growth for the County anticipated in the 2019 Certified Program EIR was 10.9 percent between 2015 and 2040.

<sup>1</sup> U.S. Census Bureau, American Community Survey. 2019 ACS 1-Year Estimates, Table B01003. Website: <https://data.census.gov> (accessed December 28, 2018).

**Table 4.7.B: Housing Forecasts for the City of Long Beach and the County of Los Angeles**

	2016	2045	Change 2016–2045	Percentage Change 2016–2045	No. of Years	Percentage of Change per Year
City of Long Beach	168,600	198,200	29,600	17.5%	25	0.70%
County of Los Angeles	3,319,000	4,119,000	800,000	24.1%	25	0.96%

Source: SCAG, Connect SoCal Demographics and Growth Forecast (September 2020).

SCAG = Southern California Association of Governments

As illustrated by Tables 4.7.A and 4.7.B, the City’s population is anticipated to increase at a lower rate than the rate of household growth in the City due to overcrowding of existing households. As detailed in the AFH, 12.2 percent of all households in the City are experiencing overcrowding. It appears that this overcrowding is due to several factors, including a mismatch between the housing stock and the needs of households in the City, a lack of sufficient growth in housing supply in recent decades that has not kept up with population growth, and a lack of sufficient affordable housing options to meet the needs of existing residents.

**Employment.** As of August 2021, the City had a labor force of 235,600 and the County had a labor force of 5,099,000, with approximately 24,100 and 517,000 people unemployed, respectively.<sup>2</sup> The August 2021 unemployment rate was 10.2 percent for the City and 10.1 percent for the County.<sup>3</sup>

As shown in Table 4.7.C, the percentage of residents employed in the City is anticipated to increase by approximately 18.9 percent resulting in approximately 29,500 new employees by 2045. The percentage of growth for the City anticipated in the 2019 Certified Program EIR was 18.6 percent between 2015 and 2040. The County’s employment is also anticipated to increase, but to a slightly lesser degree, at 12.3 percent by 2045. The percentage of growth for the County anticipated in the 2019 Certified Program EIR was 17.1 percent between 2015 and 2040.

**Table 4.7.C: Employment Forecasts for the City of Long Beach and the County of Los Angeles**

	2016	2045	Change 2016–2045	Percentage Change 2012–2040	No. of Years	Percentage of Change per Year
City of Long Beach	155,900	185,400	29,500	18.9%	25	0.75%
County of Los Angeles	4,743,000	5,328,000	585,000	12.3%	25	0.49%

Source: SCAG, Connect SoCal Demographics and Growth Forecast (September 2020).

SCAG = Southern California Association of Governments

<sup>2</sup> State of California Employment Development Department (EDD). 2021. Monthly Labor Force and Unemployment Rate for Cities and Census Designated Places, Los Angeles County. Website: <https://www.labormarketinfo.edd.ca.gov/geography/losangeles-county.html> (accessed on September 28, 2021).

<sup>3</sup> Ibid.

The City is home to small businesses and larger corporations that represent several employment sectors. Although the City's economy has historically been comprised of aerospace and manufacturing industries, over the last 25 years, the City's economy has transitioned to a knowledge-based economy with the primary employment sectors consisting of medical and educational businesses.

### 4.7.3 Regulatory Setting

#### 4.7.3.1 Federal Policies and Regulations

In 2016, the City adopted an Assessment of Fair Housing (AFH) under the guidance of and as required by the United States Department of Housing and Urban Development (HUD). The AFH provided direction for the City to address a variety of housing issues identified through data and processes recommended by HUD. The housing issues identified for Long Beach include the disproportionate needs of protected classes, the need for more affordable housing throughout the City, and the need to reduce both displacement and overcrowding in the City. Relatedly, the AFH found that the high number of large households in the City exacerbates overcrowding and housing affordability, and the AFH provided a set of recommendations to tackle the aforementioned issues. These recommendations included reducing barriers to housing construction in the City including through the adopted updates to the Land Use Element, expanding the supply of affordable and overall housing, and diversifying the housing stock to provide options for households of various incomes, size, age, and family needs.

#### 4.7.3.2 State Policies and Regulations

**2017 Legislative Housing Package.** In 2017, Governor Jerry Brown signed a historic housing package that consisted of 15 bills aimed at addressing the State's affordable housing crises. While each of these bills takes different approaches to increasing the supply of affordable housing units, several bills aim to facilitate privately funded housing by streamlining local and environmental review processes for certain types of high-priority housing developments.

**Senate Bill 35.** Senate Bill (SB) 35 requires cities and counties to follow a streamlined local review process for particular housing projects if the city or county has failed to meet established goals for accommodating a fair share of new housing development, as identified in the City's Regional Housing Needs Assessment (RHNA). SB 35 requires cities and counties to streamline the review and approval of certain affordable housing projects by providing a ministerial process to approve such processes, thereby removing the requirement for CEQA review.

Under this process, a project applicant may request a streamlined review and a ministerial approval if a project meets specific eligibility criteria. Eligible projects include the following:

- **Urban Infill:** The project is located in an urban area with 75 percent of the site's perimeter already developed.
- **Number of Units:** The project includes at least two residential units.

- **Designated for Residential Uses:** General Plan and/or Zoning Classification that allows for residential or mixed-use development with at least two-thirds of the total square footage as residential.
- **Location:** The project cannot be located on a property that is within any of the following areas: coastal zone, prime farmland, wetlands, very high fire hazard severity zone, hazardous waste site, delineated earthquake fault zone, flood plain, floodway, community conservation plan area, habitat for protected species, under a conservation easement, or located on a qualifying mobile home site.
- **Demolition of Residential Units:** The development would not demolish any housing units that have been occupied by tenants in the last 10 years; are subject to rent or price control; or are subject to a covenant, ordinance, or law that restricts rents to affordable persons and facilities of moderate, low, and/or very low incomes.
- **Historic Buildings:** The project would not demolish a historic structure, as listed on a national, State, or local historic register.
- **Consistent with Objective Planning Standards:** The project meets all objective General Plan, Zoning, and Design Review standards in effect at the time an application is submitted. SB 35 defines objective standards as those that involve no personal or subjective judgment by a public official and are verifiable by reference to an external benchmark or criterion.
- **Prevailing Wages:** If the development is not in its entirety a public work, all construction workers shall be paid at least the general prevailing rate of per diem wages for the type of work and geographic area.
- **Skilled and Trained Workforce Provisions:** A skilled and trained workforce must complete the development if the project consists of 75 or more units that are not 100 percent subsidized affordable housing.
- **Subdivisions:** The project does not involve a subdivision subject to the California Subdivision Map Act, unless the project either receives a low-income housing tax credit and is subject to prevailing wages, or is subject to requirements to pay prevailing wages and to use a skilled and trained workforce.
- **Parking:** The project must provide at least one parking space per unit; however, a project may not be subject to parking requirements under the following conditions: (1) the project is located within a half mile of a public transit stop, (2) is located in an architecturally and historically significant historic district, (3) on-street parking permits are required, but are not offered to the development occupants, or (4) there is a car share vehicle located within one block of car share stations.

SB 35 also requires local jurisdictions to report more complete information about their progress in meeting housing goals to the California Department of Housing and Community Development.

**Senate Bill 540.** Senate Bill (SB) 540 allows local governments to create Workforce Housing Opportunity Zones, which are defined as areas within a city or county that are designated for expedited housing development. In order to create Workforce Housing Opportunity Zones, cities or counties must require that at least half of the housing units are affordable to households with low or moderate incomes. Within the zones, local governments must also complete environmental and planning reviews in advance so that individual housing projects subsequently proposed within the zones are not subject to project-specific reviews or environmental challenges. Qualified housing projects must also pay prevailing wages to construction workers. Local governments that create these zones may also apply for State grants or zero-interest loans to cover the costs of completing the needed planning and environmental review processes.

**Assembly Bill 73.** Assembly Bill (AB) 73 allows cities and counties to create Housing Sustainability Districts. These districts are similar to the Workforce Housing Opportunity Zones in SB 540 but are different in that they must include at least 20 percent affordable units.

**Regional Housing Needs Assessment.** California General Plan Law (Government Code Section 65580 et seq.) requires each city and county to have land zoned to accommodate its fair share of the regional housing need. Housing unit construction goals are set by the California Department of Housing and Community Development and allocated to cities through regional planning agencies such as SCAG. This share for the SCAG region is known as the Regional Housing Needs Assessment (RHNA). The RHNA is not a mandate to construct the full number of housing units for the region; rather, the RHNA allocation process establishes short-term construction needs and the fair distribution of housing needs among income groups.

The California Department of Housing and Community Development determined that the projected housing need for the Southern California region (including the Counties of Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial) is 1,341,827 new housing units for the 2021–2029 planning period.<sup>4</sup> SCAG allocated this projected growth to the various cities and unincorporated county areas in the SCAG region, creating the RHNA. The RHNA is divided into four income group categories: extremely/very low, low, moderate, and above moderate income.

Future housing needs refers to the proportion of the region’s future housing needs allocated to a community. Each jurisdiction’s future housing need is calculated in terms of four factors: (1) the number of units needed to accommodate forecasted global household growth; (2) the number of units needed to replace demolition due to attrition in the housing stock (i.e., fire damage, obsolescence, and conversion to non-housing uses); (3) maintenance of an ideal vacancy rate for a well-functioning housing market; and (4) an adjustment to avoid an overconcentration of lower-income households in any one jurisdiction.

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<sup>4</sup> California Department of Housing and Community Development, Division of Housing and Policy Development. Regional Housing Need Assessment Determination for the SCAG Region (July 1, 2021). Website: <https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-final-allocation-plan.pdf?1625161899> (accessed September 28, 2021).

As noted below, California State law requires local jurisdictions to update their General Plan Housing Element every 8 years due to the fact that housing needs are recognized as a statewide concern. Pursuant to State law, the Housing Element must identify the City's housing needs, sites that can accommodate those needs, and policies to assure that the housing units necessary to meet those needs could be provided. Consistent with the RHNA requirements for the planning period of 2021-2029, the City updated its 2014 General Plan Housing Element and adopted it in February 2022. The Housing Element Update addressed SCAG's 6th Cycle RHNA Final Allocation Plan, adopted in March 2021. The City's RHNA allocation for the 6th Cycle is 26,502 housing units.

### **Local and Regional Policies and Regulations.**

***Southern California Association of Governments.*** SCAG is a regional council consisting of the following six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In total, the SCAG region encompasses 191 cities and over 38,000 square miles within Southern California. SCAG is the Metropolitan Planning Organization (MPO) serving the region under federal law, and serves as the Joint Powers Authority, the Regional Transportation Planning Agency, and the Council of Governments under State law. As the Regional Transportation Planning Agency, SCAG prepares long-range transportation plans for the Southern California region, including the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and the 2008 RCP. SCAG divides its six-county planning area into 15 subregions. The City of Long Beach is located within the Gateway Cities Council of Governments subregion.<sup>5</sup>

SCAG prepares several plans to address regional growth, including the Regional Comprehensive Plan, the Southern California Sustainability Planning Grant (formerly known as the Compass Growth Vision), the RHNA, the RTP, the RTP Program, and annual State of the Region reports to measure progress toward achieving regional planning goals and objectives.

SCAG's policy direction is guided by the 86-member official governing board known as the Regional Council. The Regional Council is composed of 67 districts that include an elected representative of one or more cities of approximately equal population levels that have a geographic community of interest (except the City of Long Beach, which has two representatives). Additionally, membership on SCAG's Regional Council includes one representative from each county's Board of Supervisors (except the County of Los Angeles, which has two representatives). SCAG's Regional Council also includes one representative of the Southern California Native American Tribal Governments. All members of the Los Angeles City Council are considered members of the SCAG Regional Council, and the Mayor of the City of Los Angeles serves as the Los Angeles City At-Large Representative.

***SCAG's Regional Comprehensive Plan.*** In October 2008, SCAG adopted the Regional Comprehensive Plan (RCP) for the purpose of providing a comprehensive strategic plan for defining and solving housing, traffic, water, air quality, and other regional challenges. The 2008 RCP has two primary objectives in implementing this strategic plan: (1) integrating

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<sup>5</sup> Gateway Cities Council of Governments. Gateway Cities Member Agency Contacts. Website: <http://www.gatewaycog.org/who-we-are/member-agency-contacts> (accessed August 6, 2021).

transportation, land use, and air quality planning approaches, and (2) outlining key roles for public and private sector stakeholders to implement reasonable policies regarding transportation, land use, and air quality approaches. While the 2008 RCP outlines several policies to inform local decision-makers within the SCAG region with respect to policy and planning decisions, these policies are considered recommendations and are not mandated by law.

With respect to land use policy, the 2008 RCP includes a Land Use and Housing Chapter that aims to link land use and transportation planning decisions to the projected population and economic growth in the SCAG region. Specifically, the Land Use and Housing Chapter of the 2008 RCP promotes sustainable planning for land use and housing in the SCAG region by maximizing the efficiency of the existing circulation network, providing a greater variety in housing types, promoting a diverse and growing economy, and protecting the existing natural environment. As previously stated, while the 2008 RCP identifies 2 Percent Strategy areas as part of the Compass Blueprint growth vision, these areas have since been updated and replaced by the High Quality Transit Areas (HQTAs) identified in the 2016–2040 RTP/SCS in an effort to implement the Sustainability Planning Grant Program.

***SCAG’s 2020–2045 Regional Transportation Plan and Growth Forecasts.*** In September 2020, SCAG adopted the Final 2020–2045 RTP, also known as Connect SoCal. The 2020–2045 RTP is meant to provide a common foundation for regional and local planning, policymaking, and infrastructure provision within the SCAG region as part of the RTP formulation process, which is closely interlinked with the region’s Sustainable Communities Strategy (SCS) and RHNA goals.

Connect SoCal serves as a major planning document for regional transportation and land use decisions, and balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS is updated every four years as demographic, economic, and policy circumstances change.

Connect SoCal also includes a Demographics and Growth Forecast appendix that takes into account a combination of recent and past trends, reasonable technical assumptions, and local or regional growth policies in an effort to predict the most likely growth scenarios for the Southern California region in the future.

### ***City of Long Beach General Plan.***

**Housing Element.** The City’s Housing Element reflects the State’s housing unit construction goals as allocated by SCAG in the RHNA for the years 2021–2029. The Housing Element analyzes current housing needs, estimates future housing needs, considers potential sites for additional housing, and establishes goals, policies, and programs in response to both current and future housing needs. The following policies are applicable to the analysis of population and housing:

**Goal 1:** Provide Increased Opportunities for the Construction of High-Quality Housing

**Policy 1.1:** Implement the 2019 Land Use/Urban Design Element update through a comprehensive rezoning program citywide that will provide adequate sites, zoned at the appropriate densities and development standards, to facilitate the housing production and affordability goals set forth in the 2021–2029 RHNA.

**Policy 1.2:** Facilitate the development of affordable housing by streamlining the approval process for projects with substantial levels of affordable housing.

**Policy 1.3:** Achieve a balance of rental and homeownership opportunities, including apartments, townhomes, condominiums, single-family houses, and accessory dwelling units, micro-units and alternative housing options to accommodate the housing needs of all socioeconomic segments of the community, including large families.

**Policy 1.4:** Facilitate the development of medium density housing options such as duplex, triplex, fourplex, garden court apartments, and cottages to bridge the “missing middle” housing gap between high density apartments and condominiums and low density single-family houses.

**Policy 1.5:** Encourage new high-quality rental and ownership housing through the implementation of objective design standards, and architectural and green building standards in alignment with the Urban Design Element of the General Plan.

**Policy 1.6:** Facilitate adaptive reuse of existing structures for residential purposes.

**Policy 1.7:** Encourage residential development along transit corridors, in the downtown and close to employment, transportation and activity centers; and encourage infill and mixed-use developments in designated districts in alignment with the City’s Climate Action and Adaptation Plan (CAAP) to minimize carbon emissions by focusing new housing near transit and jobs.

**Policy 1.10:** Support the development of housing that is technology-friendly and designed to meet the housing needs of the emerging information, remote learning and working, and technology industry workforce.

**Policy 1.13:** Promote mixed income and/or mixed-generation housing that fosters integration of residents of different socioeconomic backgrounds.

**Policy 1.15:** Explore mechanisms to pay for the removal and remediation of oil and gas wells on vacant or underutilized sites, to increase the number of lots available for development.

**Policy 1.16:** Explore additional locations that may be suitable for housing, such as within the City’s Tidelands area or on other publicly owned land.

### **Goal 5: Retain and Improve the Quality of Existing Housing and Neighborhoods**

**Policy 5.1:** Maintain and improve the housing stock and neighborhood conditions.

**Policy 5.3:** Promote continued maintenance of quality ownership and rental housing by offering assistance to encourage preventative maintenance and repair.

**Policy 5.4:** Prioritize public improvements (such as streets and drainage, sidewalks and alleys, green spaces and parks, street trees, and other public facilities, amenities and infrastructure) in neighborhoods with the greatest need, including neighborhoods with high concentrations of poverty and limited existing resources and amenities.

**Policy 5.6:** Create healthy neighborhoods by performing ongoing property inspections, eliminating threats to the public health, promoting business establishments that offer healthy food choices, and encouraging sustainable cooling options (solar panels, tree-planting, cool building materials and pavements) to protect at-risk populations such as children and older adults.

**Policy 5.7:** Encourage place-based strategies for neighborhood planning and improvements that incorporate biking, pedestrian, and public transit connections from lower-resource to higher-resource areas and providing shade coverage, such as tree canopy or awnings, at public transit, to enhance access to amenities throughout the city.

### **Goal 6: Ensure Fair and Equal Housing Opportunity**

**Policy 6.2:** Avoid the overconcentration of lower income housing in neighborhoods of low resources.

**Policy 6.4:** Require at minimum the replacement of housing units that are demolished because of proposed development at the same or greater levels of affordability based on deed restrictions or incomes of previous tenants.

**Policy 6.11:** Facilitate affordable housing in high opportunity areas, including through the provision of Accessory Dwelling Units and through acquisition, rehabilitation and conversion of existing housing units to be affordable.

The City adopted an update to the Housing Element in February 2022 that replaces the 2014 Housing Element and addresses the planning period of 2021–2029. The Housing Element Update also addresses the City’s RHNA allocation for the 6th Cycle of 26,502 housing units.

**Land Use Element.** In order to meet the City’s obligations to the State, the City’s adopted LUE (2019) incorporated the regional growth projections included in the Final 2016–2040 RTP. The adopted LUE expands upon the growth projections included in SCAG’s Demographics and Growth Forecast to include data provided to the City by the California Department of Housing and Community Development. Following the adoption of the 2016–2040 RTP, the California Department of Housing and Community Development provided the City with updated information regarding the number of housing units needed to satisfy the City’s Regional Housing Needs Assessment (RHNA). In addition, under the guidance of HUD, the City prepared its own Assessment of Fair Housing (AFH), adopted in 2016, which provided additional data on housing issues such as overcrowding. The adopted LUE combined these and other data sources to provide a more complete picture of housing needs in the City. This revised housing needs estimate addressed in the 2019 Certified Program EIR included the anticipated population growth as well as the overcrowding of existing residents, using the most recently available data from all the aforementioned sources. The City’s Land Use Element (2019) formulated the following broad-range goals guiding land use in the City: manage growth, encourage economic development, revitalize the Downtown area, allow for the construction of new housing, encourage the development of affordable housing, emphasize strong neighborhoods, maintain existing public facilities, and maintain and/or improve the circulation system. The Land Use Element (LUE) introduced the concept of “PlaceTypes,” which replaced the prior approach of segregating property within the City through traditional land use designations and zoning classifications. The following policies are applicable to the analysis of population and housing:

**Goal No. 1:** Implement Sustainable Planning and Development Practices

**LU Policy 1-2:** Support high-density residential, mixed-use, and transit-oriented development within the downtown, along transit corridors, near transit stations, and at neighborhood hubs.

**Goal No. 2:** Strengthen the City’s Fiscal Health by Stimulating Continuous Economic Development and Job Growth

**Strategy No. 3:** Maintain a strong, diversified economic base that creates jobs and attracts employers.

**LU Policy 3-1:** Implement land use regulations and economic development strategies that will help diversify the local economy and expand job growth. Accommodate a mix of industries in Long Beach, including high technology, telecommunications, aerospace, green technology, renewable energy, healthcare, higher education, manufacturing, port and shipping, professional services, restaurants/entertainment, and the film industry.

**LU-M-13:** Invest in infrastructure systems and community services that support a wide range of industries, including high technology, telecommunications, aerospace, green technology, renewable energy, healthcare, higher education,

manufacturing, port and shipping, professional services, restaurants/entertainment, and the film industry.

**LU-M-59:** Attract renewable energy and green technology manufacturing companies to establish a presence/office in the City. Facilitate the creation of jobs in the renewable/clean energy sector.

**LU Policy 3-4:** Promote and attract a mix of commercial and industrial uses by emphasizing the flexibility of the PlaceTypes designations.

**Strategy No. 4:** Attract and invest in green and innovative industries to expand creative employment opportunities.

**LU Policy 6-1:** Encourage a mix of land uses that is diverse, innovative, competitive, entrepreneurial, local, and sustainable, which thereby promotes economic development, increases City revenues, expands job growth and increases value, access, and usability for existing neighborhoods and communities.

**LU Policy 6-12:** Support growth of clean industrial businesses that contribute both high-paying jobs and point-of-sale revenue.

**Goal No. 3:** Accommodate Strategic Growth and Change

**Strategy No. 7:** Implement the major areas of change identified in [the] Land Use Plan (Map LU-20).

**LU Policy 7-7:** Continue to develop the Downtown into a City center that provides compact development, accommodates new growth, creates a walkable urban environment, allows for diversified businesses, and is easily accessible to surrounding neighborhoods and regional facilities.

**LU Policy 7-9:** Focus infill development in the Downtown, Multi-Family residential neighborhoods and transit-oriented development areas, and along specific corridors.

**LU Policy 7-11:** Support infill and transit-oriented development projects by utilizing available tools, such as public-private partnerships and assistance with land assembly and consolidation.

**Strategy No. 13:** Facilitate housing type distribution.

**LU Policy 13-2:** Provide new housing opportunities in neighborhood-serving centers and corridors, within transit-oriented development areas and Downtown.

**Urban Design Element.** The Urban Design Element (2019) defines the physical aspects of the urban environment. Specifically, the Urban Design Element enhances the City's PlaceTypes established in the Land Use Element (2019) by creating great places; improving the urban fabric, and public spaces; and defining edges, thoroughfares, and corridors. By

improving the urban fabric, the City would allow for new development that would complement the existing historical development while serving as a unique and distinctive feature of the City. The following strategy and policies are applicable to the analysis of population and housing:

**Policy UD 8-3:** Enhance walkable streets and neighborhoods to create pedestrian-friendly environments that support business vitality.

**Strategy No. 16:** “Complete the neighborhood” by filling in gaps (e.g., functional needs like housing, new or missing services, new public amenities or services, healthy food options, flexible uses on larger streets, and fostering a safe walkable environment within each PlaceType).

**Policy UD 16-1:** Provide opportunities for mixed-use development within focused locations (areas of change and target areas) to provide opportunities for live-work, affordable and mixed-income housing, and commercial and residential mixes in a medium- to high-density setting.

#### 4.7.4 Methodology

This section compares existing population, housing, and employment characteristics in the City and evaluates the proposed project for changes to population, housing, and employment due to the implementation of the proposed CAAP and Safety Element Update, consistent with the adopted General Plan Land Use Element (LUE).

In order to compare existing socioeconomic conditions to the potential project-related increase in population, housing, and employment, this section relies upon several data sources, including SCAG’s 2020–2045 RTP, the adopted LUE, and U.S. Census Bureau data. While SCAG and the adopted LUE provide key socioeconomic data and growth projections related to population, housing, and employment, key information from the 2019 U.S. Census Bureau’s ACS (5-year pooled sample and 1-year estimates) is utilized in this section to describe existing socioeconomic characteristics of the City in the absence of such data in the 2020–2045 RTP and the adopted LUE. Additionally, the 2019 ACS 1-year sample is used for baseline population counts to provide the most recent estimates available.<sup>6</sup>

##### 4.7.4.1 CEQA Baseline

On September 3, 2020, SCAG adopted Connect SoCal, the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Therefore, the SCAG data in Connect SoCal are utilized as the baseline for population and housing impacts and are consistent with regional growth

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<sup>6</sup> According to the U.S. Census Bureau, the Census Bureau will not release its standard 2020 ACS 1-year estimates because of the impacts of the COVID-19 pandemic on data collection. Experimental estimates, developed from 2020 ACS 1-year data, will be available on the ACS Experimental Data webpage no later than November 30, 2021. Therefore, 2019 ACS 1-year data are provided as the most up-to-date information available as of the Notice of Preparation for this Draft SEIR.

forecasts for the City, Los Angeles County, and the SCAG region. These data provide an updated baseline from the assumptions of the City's General Plan that are based on the 2016 RTP/SCS.

#### 4.7.5 Thresholds of Significance

The following thresholds of significance are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact on population, housing, and employment if it would:

**Threshold 4.7.1:** Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)

**Threshold 4.7.2:** Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere

#### 4.7.6 Project Impacts

**Threshold 4.7.1:** **Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

**CAAP: Less Than Significant Impact.** The *State CEQA Guidelines* identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing either directly or indirectly, in the surrounding environment (*State CEQA Guidelines*, Section 15126.2(e)). New employees of commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth can have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area. Direct employment impacts reflect the initial or first-round increases in jobs and wages that result from the creation of on-site jobs. Indirect impacts occurring as a consequence of the direct impacts, elsewhere within the project area, may result from the production of goods and services required to support the proposed on-site uses, and/or the production of goods and services required to meet consumer demand generated by wages paid to new employees.

A project could also indirectly induce growth by reducing or removing barriers to growth or by creating a condition that attracts additional population or new economic activity. According to the *State CEQA Guidelines*, Section 15126.2(e), "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment." Typically, the growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies (e.g., SCAG). Significant growth impacts could also occur if the project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public utilities, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

The proposed project includes adoption of the proposed CAAP, which was included as a mitigation measure (MM GHG-1) in the 2019 Certified Program EIR for the LUE/UDE and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development consistent with the adopted LUE. The proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. The proposed project would be implemented through a variety of city and public sector actions as well as through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA streamlining for project-specific GHG analysis. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would achieve the City's GHG emissions targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a project does not include Tier 1 measures, equivalent measures for GHG emission reductions must be provided for the project to utilize the Checklist in lieu of a project-level GHG analysis.

The proposed CAAP also identifies Adaptation Actions, which provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change in particular locations throughout the City. While the Adaptation Actions would not be required to meet the City's GHG reduction targets, they are listed in the CAAP Checklist for future discretionary projects to incorporate, as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP. Those policies are intended to improve the ability of Long Beach and its residents and businesses to adapt to climate change and related impacts and include extreme heat actions, air quality actions, and drought and flooding actions. Examples of the strategies provided in the Adaptation Actions include increasing the presence of cool roofs and cool walls and identifying future vulnerability potential for power outages related to extreme heat. These Adaptation Actions provide general concepts that are expected to improve resiliency throughout the City; however, these strategies would not facilitate future development and would have no impact on population or housing.

**Construction.** Construction associated with future discretionary projects that would implement measures to support the CAAP Actions or Adaptation Actions would provide short-term construction jobs that would be temporary and/or seasonal. The workforce would include a variety of craftspeople, such as cement finishers, ironworkers, welders, carpenters, electricians, painters, and laborers. Generally, construction workers are only at a job site for the timeframe in which their specific skills are needed to complete that phase of construction. Although future construction activities would increase the number of employees in the planning area, it is expected that the local and regional construction workforce would be available to serve future construction needs. As such, construction workers would not be expected to relocate their household's place of residence as a consequence of working within the planning area. Therefore, construction activities associated with future discretionary projects that would implement the measures to support the CAAP Actions or Adaptation Actions would result in less than significant impacts associated with inducing substantial growth or demand for housing through increased construction employment, and no mitigation would be required.

**Population.** The City's population has grown over the past several decades. As identified in Table 4.7.A, the City's population is forecast to reach nearly 489,600 persons by 2045, an increase of 18,700 persons over the population in 2016. As described above, the population increase of 3.9 percent anticipated in the SCAG estimates between 2016 and 2045 is the same percentage of increase that was anticipated in the 2019 Certified Program EIR for the years 2015 to 2040. The adopted LUE allows for areas of focused change and the potential for increased intensity and density. The proposed project is designed to help implement the LUE in a sustainable manner and would include measures to support the CAAP Actions for increased housing and employment along major transit corridors (T-6) and increased density and mixing of land uses (T-8). These CAAP Measures promote mixed-use and transit-oriented development in City centers consistent with the existing LUE. Adoption of the proposed measures to support the CAAP would not induce population growth beyond what was anticipated in the 2019 Certified Program EIR. Implementation of the measures to support the CAAP Actions or Adaptation Actions would ensure future discretionary projects anticipated by the General Plan buildout scenario are implemented in a manner that meets the City's GHG reduction goals and is not anticipated to result in significant population growth. Furthermore, all future discretionary projects that implement measures to support the CAAP Actions or Adaptation Actions, including potential future housing development and employment along transit corridors, would be reviewed under CEQA for consistency with the General Plan.

**Housing Units.** As described above, the City of Long Beach updated and adopted its Housing Element (February 2022). The Housing Element contains policies designed to meet the housing needs of the City. State law requires that each jurisdiction evaluate its Housing Element every 8 years to determine its effectiveness in achieving city and State goals and objectives, and to adopt an Updated Housing Element that reflects the results of this evaluation. The Housing Element contains a detailed program to assure the adequate provision of housing for all economic segments of the City's population. Further, California Government Code requires that General Plans contain an integrated, consistent set of goals and policies. Therefore, the Housing Element is shaped by development policies contained in the Land Use Element, which establish the location, type, intensity, and distribution of land uses in the City.

The 2021–2029 Housing Element Update was designed to accommodate the RHNA in a manner consistent with the LUE including through transit-oriented, mixed-use development strategies to accommodate projected population growth. Implementation of the measures to support the CAAP Actions will achieve the goals outlined in the current Housing Element and Housing Element Update, consistent with the adopted LUE. Similarly, future updated Housing Elements and implementation of their policies will ensure that adequate housing opportunities are provided to all City residents. As identified in Section 4.5, Land Use and Planning, of this SEIR, approval of the proposed project would ensure consistency with the City's General Plan by fulfilling Mitigation Measure GHG-1 and providing a CAAP Checklist for all future discretionary projects. Through the use of the CAAP Checklist, future discretionary projects would demonstrate which measures to support the CAAP Actions or Adaptation Actions would be implemented to meet the City's GHG reduction goals, consistent with the adopted LUE goals and policies and adopted PlaceTypes. Through the adopted PlaceTypes, future discretionary projects that implement CAAP Actions or Adaptation Actions would be consistent with the increased intensity and density of mixed-use and residential uses anticipated by the General Plan buildout through the year 2040. As such, approval of the proposed project would

be consistent with the City's objective to allow for the construction of sufficient new housing equal to or in excess of the RHNA requirements, while reducing GHG emissions.

As previously stated, a project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with the increase in project population, thereby reducing or removing the barriers to growth. This can occur in areas where population growth results in an increased demand for service and commodity markets responding to the increased growth in population. However, this type of growth is a regional phenomenon resulting from the introduction of a major employment center or a significant housing project. The measures to support the CAAP Actions would promote increased housing and employment along major transit corridors and increased density and mixing of land use; however, such development would be consistent with the adopted LUE as analyzed in the 2019 Certified Program EIR and would therefore not result in indirect population growth as a result of the proposed CAAP. In addition, Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. There are no Tier 2 measures identified for the Building and Energy sector. Implementation of these measures would support the CAAP Actions for Building and Energy by requiring increased access to and incentives for clean electricity (BE-1 and BE-5) and increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures. Other Building and Energy CAAP Actions supported by these measures listed on the CAAP Checklist would increase energy efficiency of existing facilities, electrifying new residential and commercial buildings, and are not anticipated to result in population growth. Most of these new facilities such as solar panels and energy efficiency improvements would be constructed within or on existing or proposed buildings (e.g., rooftops or installation of energy efficient fixtures). Their installation would likely not result in new facilities or induced growth, and any future needed facilities would be subject to project-level CEQA review. New renewable energy, transportation, waste, or other improvements promoted by the CAAP Actions may generate a limited number of new employees but would likely not induce population growth as they would not result in the physical development of any buildings or structures and all future discretionary projects that would implement CAAP Actions would be evaluated for consistency with planned growth in the City's General Plan.

**Employment.** The extent to which the new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth-related effect of a project. While the proposed project is considered a planning/policy action and does not include any physical improvements or projects at this time, future discretionary projects that would utilize the CAAP Checklist would create a number and variety of construction jobs that would be temporary or seasonal. This workforce would include a variety of craftspeople, such as grading equipment operators, cement finishers, ironworkers, welders, carpenters, electricians, painters, and laborers. The LUE anticipated the creation of 28,500 new jobs in order to help address the jobs-housing mismatch in the City by creating local jobs for residents. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area. Therefore, construction of future projects that implement measures to support the CAAP Actions will not generate a permanent increase in population within the project area.

The CAAP does not include any physical development but rather includes measures to support the CAAP Actions that would be incorporated into future discretionary projects to help reduce the City's GHG emissions. Future discretionary projects that implement measures to support the CAAP Actions and Adaptation Actions would be reviewed for consistency with the growth envisioned in the adopted LUE and regional forecasts, at the time they are proposed. Therefore, the proposed project would result in less than significant impacts with respect to the inducement of substantial unplanned population growth in an area, and no mitigation would be required.

**Summary:** It should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to unplanned population growth. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or result in any physical development that would result in impacts related to substantial unplanned population growth. Therefore, the Safety Element Update would have no impact on population or housing. No mitigation is required.

**Threshold 4.7.2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

**CAAP: Less Than Significant Impact.** The proposed project is considered a policy/planning action and does not include any physical improvements that would displace housing or people; rather, the proposed project provides measures to support the CAAP Actions that would apply to future discretionary projects that would accommodate future growth already projected to occur in the City, and ensure that future development is implemented in a manner that meets the City's GHG reduction goals. Adoption of the CAAP and future discretionary projects that implement measures to support the CAAP Actions would not displace substantial numbers of existing housing or people because the CAAP would not change local land use plans, and future facilities supported by the measures to support the CAAP Actions would be reviewed for consistency with the General Plan.

Therefore, the proposed project would not result the displacement of substantial numbers of existing housing or people, necessitating the need for replacement housing elsewhere. No mitigation is required.

As stated above, the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to the displacement of people or housing. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter

the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or result in any physical development that would displace housing or necessitate additional housing. Therefore, the Safety Element Update would have no impact on population or housing. No mitigation is required.

#### 4.7.7 Compliance Measures and Project Design Features

The proposed project would not be required to adhere to any compliance measures and would not include any project design features related to population and housing.

#### 4.7.8 Mitigation Measures

There are no potentially significant impacts related to housing, population, and employment, and no mitigation would be required.

#### 4.7.9 Level of Significance after Mitigation

There are no significant and unavoidable adverse impacts of the proposed project related to population, housing, and employment. No mitigation would be required.

#### 4.7.10 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for population, housing, and employment. The cumulative study area used to assess potential cumulative population and housing impacts includes the City of Long Beach and the County of Los Angeles because employees in the planning area may live within or outside the City's jurisdictional boundaries. The proposed project does not include physical improvements or development. Future projects to implement CAAP Actions would be subject to project-level CEQA review as required.

As shown in Tables 4.7.A and 4.7.B, the City's population is anticipated to increase by 18,700 persons, and the City's employment is anticipated to increase by 29,500 new employees by 2045. Increases in population and employment have been accounted for in SCAG's growth projections for the City. The proposed project includes Tier 1 and Tier 2 measures to support the CAAP Actions and Adaptation Actions that would apply to future discretionary projects to ensure consistency with the adopted LUE, help the City meet its GHG reduction targets, and lessen the impacts of climate change on the City's residents, employees, and housing. Therefore, the proposed project would be consistent with the General Plan buildout and would not result in cumulative population or employment increases that would exceed projected regional forecasts for the City.

Approval of the proposed project would allow for measures to support the CAAP Actions and Adaptation Actions to be implemented with future discretionary projects that would include development of a variety of uses, including industrial, residential, commercial, office, recreational, and mixed-uses. These uses would serve to provide a sound and diversified economic base and ample employment opportunities for the citizens of Long Beach. Furthermore, the measures to support the CAAP Actions and Adaptation Actions would apply to future discretionary projects that would serve an existing demand for employment, while also meeting the cumulative demand of employment that would result from the City's projected future population. These increases for population, housing, and employment would be within the total projected growth forecasts for 2045, as established in the Final 2020–2045 RTP. In addition, implementation of the proposed project would be consistent with the City's vision for the community and GHG reduction goals. Therefore, implementation of the proposed project would not result in a cumulatively significant population or housing impact and the measures to support the CAAP Actions and Adaptation Actions would not result in future development that would induce growth in areas where growth was not previously anticipated.

The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or result in any physical development that would result in impacts related to increased population or housing or induced growth within the City. Therefore, the proposed project's contribution to impacts on population and housing would not be cumulatively considerable, and no mitigation would be required.

## 4.8 PUBLIC SERVICES

This section describes the public services currently serving the planning area and evaluates the potential impacts of the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update (proposed project) on public services. This section is based on multiple data sources, including the currently adopted General Plan Safety Element (1975), and the proposed Safety Element Update, as well as planning documents and websites of potentially affected public service providers. Specific references are identified within the subsection for each respective issue. This section addresses the following public services (service providers are noted in parenthesis):

- Fire Protection (City of Long Beach Fire Department [LBFD])
- Law Enforcement (City of Long Beach Police Department [LBPD])
- Public Schools (Long Beach Unified School District [LBUSD])
- Public Libraries (Long Beach Public Library [LBPL] System)

As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions and Adaptation Actions at this time would be speculative. Any future discretionary projects necessary to implement the CAAP would be subject to project-level CEQA as required. Therefore, the analysis in this Subsequent Environmental Impact Report (SEIR) focuses on the potential impacts from the measures included in the CAAP Consistency Review Checklist (CAAP Checklist) required for future discretionary projects, as well as the programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.8.1 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft SEIR. No comment letters included comments related to public services.

### 4.8.2 Existing Environmental Setting

#### 4.8.2.1 Fire Protection

The Long Beach Fire Department (LBFD) is the primary authority in the City responsible for providing fire protection, medical, rescue, disaster response, public safety education, community service, and environmental emergency services. The LBFD currently serves City residents and visitors from its 23 fire stations located throughout the City, the Beach Operations headquarters, and the LBFD headquarters.<sup>1</sup> The planning area includes the entire area within the City's jurisdictional limits (approximately 50 square miles). As such, all 23 stations, the nine lifeguard facilities, and the related

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<sup>1</sup> City of Long Beach Fire Department (LBFD). Station Locations. Website: <https://www.longbeach.gov/fire/about-us/station-locations/> (accessed September 8, 2021).

training centers and headquarters would serve the planning area. According to the City's *Fiscal Year 2021 Adopted Budget*, it is the stated goal of the LBFD to respond to structure fire calls within 6 minutes and 20 seconds or less.<sup>2</sup> For 2020, LBFD responded to 86 percent of fire calls within this time and is targeting 90 percent for Fiscal Year 2021.

#### 4.8.2.2 Police Protection

The Long Beach Police Department (LBPD) provides local police protection services to the City, and the LBPD consists of five separate bureaus: (1) the Investigation Bureau, (2) the Support Bureau, (3) the Patrol Bureau, (4) the Administration Bureau, and (5) the Financial Bureau.<sup>3</sup> LBPD strives to respond to Priority 1 Calls for Service (crime in progress/life-threatening situations) in 5 minutes or less, on average. In 2020, the average response time to Priority 1 Calls was 4.4 minutes.<sup>4</sup> Priority 2 Calls are non-emergency calls for crimes that have been committed with possible evidence available. The LBPD goal is to respond to Priority 2 Calls for service in 20 minutes or less, on average. Priority 3 calls are generally related to crimes with no evidence potential but are required or desired to take a report of a crime. The LBPD goal is to respond to Priority 3 calls for service in 30 minutes or less, on average. As such, Priority 1 Calls receive LBPD's fastest response time.

#### 4.8.2.3 Public Schools

The provision of education and school facilities in the City is the responsibility of the Long Beach Unified School District (LBUSD), which is currently the third largest school district in the State and serves approximately 69,700 students in 85 schools in the Cities of Long Beach, Lakewood, Signal Hill, and Avalon (on Catalina Island).<sup>5</sup> According to the Residential and Commercial/Industrial Development School Fee Justification Study, LBUSD schools have the capacity for 82,505 students for the school year 2019/2020. Of these 82,505 seats, 44,979 are at the elementary school level, 13,776 are at the middle school level, and 23,750 are at the high school level.<sup>6</sup>

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<sup>2</sup> City of Long Beach. 2021. Fiscal Year 2021 Adopted Budget. Website: [https://www.longbeach.gov/globalassets/finance/media-library/documents/city-budget-and-finances/budget/budget-documents/fy-21-adopted-budget/full-book-print\\_for-web\\_covers-included](https://www.longbeach.gov/globalassets/finance/media-library/documents/city-budget-and-finances/budget/budget-documents/fy-21-adopted-budget/full-book-print_for-web_covers-included) (accessed September 8, 2021).

<sup>3</sup> City of Long Beach Police Department (LBPD). Police Department. Website: <https://www.longbeach.gov/police/> (accessed September 8, 2021).

<sup>4</sup> City of Long Beach. 2021. Fiscal Year 2022 Proposed Budget. Website: <https://www.longbeach.gov/globalassets/finance/media-library/documents/city-budget-and-finances/budget/budget-documents/fy-22-proposed-budget/fy-22-proposed-budget-book---online> (accessed September 8, 2021).

<sup>5</sup> Long Beach Unified School District (LBUSD). About - Long Beach Unified School District. Website: <https://www.lbschools.net/District/> (accessed September 8, 2021).

<sup>6</sup> Long Beach Unified School District (LBUSD). 2020. Residential and Commercial/Industrial Development School Fee Justification Study. Website: [https://www.lbschools.net/Asset/Files/Business\\_Services/Developer\\_Fees/2020/LongBeachUSD\\_FS\\_1920\\_Fn.pdf](https://www.lbschools.net/Asset/Files/Business_Services/Developer_Fees/2020/LongBeachUSD_FS_1920_Fn.pdf) (accessed September 8, 2021).

#### 4.8.2.4 Public Libraries

The Long Beach Public Library (LBPL) system provides library services to the City and includes 12 branch locations throughout the City.<sup>7</sup> In total, the LBPL system has approximately 237,695 square feet (sf) of library facilities, approximately 798,760 library materials (includes hardcopies and online resources), and approximately 296 computers available for public use (total computers include 261 with internet access and 35 with catalog access only). While the City has not formally adopted a service standard of library space per capita, the City did establish a target of 0.45 sf per capita in its budget for Fiscal Year 2007.<sup>8</sup> Using this standard and 462,628 as the estimated 2019 population with a total Citywide library square footage of 237,695, the LBPL currently provides approximately 0.51 sf per capita; according to the service standard, this represents a surplus of library space by 0.05 sf per capita.<sup>9</sup>

### 4.8.3 Regulatory Setting

#### 4.8.3.1 Federal Policies and Regulations

**International Fire Code.** The International Fire Code (IFC) regulates minimum fire safety requirements for new and existing buildings, facilities, storage, and processes. The IFC includes general and specialized technical fire and life safety regulations addressing fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, use and storage of hazardous materials, protection of emergency responders, industrial processes, and many other topics.

#### 4.8.3.2 State Policies and Regulations

**California Health and Safety Code.** Sections 13000 et seq. of the California Health and Safety Code include fire regulations for building standards (also contained in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

**California Fire Code.** The California Fire Code (CFC; California Code of Regulations Title 24, Part 9) sets forth requirements including emergency access, emergency egress routes, interior and exterior design and materials, fire safety features including sprinklers, and hazardous materials. The CFC is issued on a 3-year cycle; the 2019 Edition (the most recent version, which took effect January 1,

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<sup>7</sup> Long Beach Public Library (LBPL). Library Locations. Website: <http://www.longbeach.gov/library/visit/locations/> (accessed September 8, 2021).

<sup>8</sup> Fiscal Year 2007 is the most current year for which target library performance standards have been established. As noted above, these standards have not been formally adopted by the City. Source: City of Long Beach. Fiscal Year 2007 Adopted Budget. Library Services. Website: <https://www.longbeach.gov/globalassets/finance/media-library/documents/city-budget-and-finances/budget/budget-documents/fy-07-adopted-budget-webpage/library-services-fy-07-adop/> (accessed September 8, 2021).

<sup>9</sup> United States Census Bureau. Quick Facts City of Long Beach, California. Website: <https://www.census.gov/quickfacts/longbeachcitycalifornia> (accessed September 8, 2021).

2020) of the CFC is adopted and incorporated by reference in Chapter 18.48 (Fire Code) of the City's Municipal Code.

**California State Assembly Bill 2926: School Facilities Act of 1986.** To assist in providing school facilities to serve students generated by new development, Assembly Bill (AB) 2926 was enacted in 1986 and authorizes a levy of school impact fees on new residential and commercial/industrial development. The bill was expanded and revised in 1987 through the passage of AB 1600, which added Sections 66000 et seq. to the Government Code. Under this statute, payment of impact fees by developers serves as California Environmental Quality Act (CEQA) mitigation to satisfy the impact of development on school facilities.

**California Senate Bill 50.** Senate Bill (SB) 50, passed in 1998, provides a comprehensive school facilities financing and reform program and enables a statewide bond issue to be placed on the ballot. Under the provisions of SB 50, school districts are authorized to collect fees to offset the costs associated with increasing school capacity as a result of development and related population increases. The funding goes toward acquiring school sites, constructing new school facilities, and modernizing existing school facilities. SB 50 establishes a process for determining fee amounts charged to developers to mitigate the development impacts on school districts from increased enrollment. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation."

Under this legislation, there are three levels of developer fees that may be imposed upon new development by the governing school district. Level I fees are assessed based upon the proposed square footage of residential, commercial/industrial, and/or parking structure uses. Level II fees require the developer to provide one-half of the cost of accommodating students in new schools, and the State provides the remaining half. To qualify for Level II fees, the board of the governing school district must adopt a School Facilities Needs Analysis and meet other prerequisites in accordance with Section 65995.6 of the California Government Code. Level III fees apply if the State runs out of bond funds, allowing the governing school district to impose 100 percent of the cost of the school facility or mitigation, minus any local dedicated school monies, on the developer.

#### 4.8.3.3 Local Regulations

**City of Long Beach Municipal Code.** The following provisions from the City's Municipal Code focus on public services impacts associated with new development projects and are relevant to the proposed project:

**Chapter 18.22 (Police Facilities Impact Fees).** This chapter sets forth fees that are imposed on residential and nonresidential development for the purpose of assuring that impacts created by new development be offset by payment of its fair share of costs required to support needed police facilities and related costs necessary to accommodate such development.

**Chapter 18.23 (Fire Facilities Impact Fees).** This chapter sets forth the fees that are imposed on residential and nonresidential development for the purpose of assuring that impacts created by new development be offset by payment of its fair share of the costs required to support needed fire facilities and related costs necessary to accommodate such development. The funds are to

be utilized for payment of the actual or estimated costs of fire facilities, apparatuses, and equipment related to new residential and nonresidential construction.

**Chapter 18.48 (Fire Code).** This chapter formally adopts the 2013 Edition of the California Fire Code (CFC), excluding sections, chapters, or appendices pursuant to Section 18.48.040. The CFC sets forth requirements including emergency access, emergency egress routes, interior and exterior design and materials, fire safety features including sprinklers, and hazardous materials.

**City of Long Beach Proposition H.** The Police and Fire Public Safety Oil Production Act Fund, Proposition H, was established to provide dedicated funds for police and fire services by assessing a special production tax on oil producers in Long Beach. The special tax proceeds support police and fire responses to public safety needs. As of July 1, 2019, the tax rate was \$0.32 per barrel.<sup>10</sup>

**City of Long Beach General Plan Public Safety Element.** The following public safety goals and recommendations are included in the Public Safety Element of the City General Plan (1975) and are applicable to the proposed project as they relate to the police and fire protection required for existing and proposed land uses. The following goals and recommendations are applicable to the proposed project.

**Development Goal 1.** Promote the redevelopment of areas which may present safety problems.

**Development Goal 2.** Utilize safety considerations as a means of encouraging and enhancing desired land use patterns.

**Development Goal 6.** Encourage transportation systems, utilities, industries, and similar uses to locate and operate in a manner consistent with public safety goals.

**Development Goal 9.** Encourage development that would augment efforts of other safety-related Departments of the City (i.e., design for adequate access for firefighting equipment and police surveillance).

**City of Long Beach General Plan Land Use Element.** The City's Land Use Element (2019) formulated the following broad-range goals guiding land use in the City: manage growth; encourage economic development; revitalize the Downtown area; allow for the construction of new housing; encourage the development of affordable housing; emphasize strong neighborhoods; maintain existing public facilities; and maintain and/or improve the circulation system. The Land Use Element introduced the concept of "PlaceTypes," which replaced the prior approach of segregating property within the City through traditional land use designations and zoning classifications. The following policies are applicable to the analysis of Public Services:

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<sup>10</sup> City of Long Beach. 2020. Proposition H Police and Fire Public Safety Oil Production Act Fund FY 2019 Audit. Website: <https://www.cityauditorlauradoud.com/wp-content/uploads/2020/01/Proposition-H-FY-2019-Audit.pdf> (accessed September 8, 2021).

**LU Policy 14-1:** Remedy existing deficiencies in blighted and underserved neighborhoods by providing public facilities, amenities, improvements and services equitably throughout the City.

**LU Policy 16-1:** Identify areas and populations of the City that are exposed to unsafe levels of environmental pollutants.

**LU Policy 16-7:** Address Environmental Justice through public infrastructure investments in disadvantaged communities. These investments should address compound and unique health risks by reducing and limiting air pollutant exposure, providing health care infrastructure, using clean and renewable energy where available and improving active living and transportation options, as well as access to safe recreation, food, and housing options.

**LU Policy 17-2:** Maintain adequate and sustainable infrastructure systems to protect the health and safety of all Long Beach residents, businesses, institutions and regional-serving facilities.

**LU-M-95:** Reuse vacant properties as community amenities such as gardens, parks, or temporary green spaces to reduce blight and safety issues, increase residents' access to needed parks and open spaces, and spur additional investment in neighborhoods.

**City of Long Beach General Urban Design Element.** The Urban Design Element (2019) defines the physical aspects of the urban environment. Specifically, the Urban Design Element enhances the City's PlaceTypes established in the Land Use Element (2019) by creating great places; improving the urban fabric, and public spaces; and defining edges, thoroughfares, and corridors. By improving the urban fabric, the City would allow for new development that would complement the existing historical development while serving as a unique and distinctive feature of the City. The following strategy and policies are applicable to the analysis of Public Service impacts:

**Strategy No. 7:** Provide safe and secure neighborhoods, streets, buildings, parks, and plazas.

**Policy UD 7-1:** Encourage public amenities and spaces in neighborhoods that allow for human contact, social activities, and community involvement to create an "eyes on the street" environment.

**Policy UD 16-4:** Promote safe, complete neighborhoods through a mix of uses and activities that create a 24/7 live, work, play atmosphere.

**Policy UD 16-5:** Incorporate Crime Prevention through Environmental Design (CPTED) strategies into the design and development of populated areas.

#### 4.8.4 Methodology

The effects of the proposed CAAP and Safety Element Update are evaluated below to determine whether they would result in a significant adverse impact on the environment. The impact analysis presented in this section is based on the effect that implementation of the proposed project would have on public services. The discussion focuses on current levels of service provided to the project area and information on possible constraints or impacts to the facilities and/or services associated with the proposed project.

#### 4.8.4.1 Analysis Approach

Because the proposed project under evaluation in this Draft SEIR includes both the proposed CAAP and Safety Element Update of the City's General Plan, and because specific design plans for future discretionary projects that may be facilitated by approval of the proposed project are not known at this time, the effects to public services of the proposed project are evaluated on a programmatic level based on the project's consistency with goals and policies established in the Public Safety Element (1975) and the goals and policies included in the proposed Safety Element Update and whether or not changes in public services may result from implementation of the proposed project.

The location and design of future discretionary projects that would implement the Tier 1 CAAP Actions required to meet the City's greenhouse gas (GHG) targets and all other applicable CAAP Actions would be required to be consistent with goals, policies, strategies, and development standards established by the adopted Land Use Element (LUE) and Urban Design Element (UDE), which are intended to avoid, reduce, offset, or otherwise minimize identified potential adverse impacts of the proposed project or provide significant benefits to the community and/or to the physical environment.

#### 4.8.5 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact on public services providers if it would:

- Threshold 4.8.1:** Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *fire protection*;
- Threshold 4.8.2:** Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *police protection*;
- Threshold 4.8.3:** Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *public schools*;
- Threshold 4.8.4:** Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *parks*; or

**Threshold 4.8.5:** Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *any other public facilities*.

#### 4.8.6 Project Impacts

**Threshold 4.8.1:** Would the project result in substantial adverse physical impacts associated altered with the provision of new or physically governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives *for fire protection?*

Or

**Threshold 4.8.2:** Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives *for police protection;*

**CAAP: Less Than Significant Impact.** The proposed project includes the proposed CAAP, which was included as a mitigation measure in the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development consistent with the adopted LUE and reduce the City's GHG emissions. The proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. Implementation of CAAP Actions by the City or other agencies, such as performance of municipal energy and water audits (BE-7), may not be subject to discretionary approval and project-level CEQA review. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA streamlining for GHG analysis. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would help achieve the City's GHG emissions targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a project does not include specific Tier 1 measures, equivalent measures for GHG emission reductions backed by substantial evidence must be provided for the project to utilize the Checklist in lieu of a project-level GHG analysis.

Tier 1 measures are required because they were quantified as part of the City's GHG reduction pathway for new development. Tier 1 measures or equivalent strategies would also be required for other improvements to existing development to demonstrate consistency with the goals and

policies of the CAAP. Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. There are no Tier 2 measures identified for the Building and Energy sector. Implementation of these measures would support the CAAP Actions for Building and Energy by requiring increased access to and incentives for clean electricity (BE-1 and BE-5), and the increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures. Other Building and Energy CAAP Actions supported by the measures listed on the CAAP Checklist would increase energy efficiency of existing facilities, electrify new residential and commercial buildings, and reduce emissions from local oil and gas extraction. Most of these new facilities would be constructed within or on existing or proposed buildings (e.g., rooftops). Their installation would likely not result in new employees and associated increases in population that would require additional fire protection or police protection services.

Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 2 measures for the Transportation sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service (T-1), providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5), complying with City TDM requirements (T-7), and complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to SB 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Similar to the Building and Energy CAAP Actions above, future projects that include the development of new transit facilities and increased residential, commercial and mixed-use development would be evaluated for transit service at the time such discretionary projects are submitted for review and approval. Other Tier 2 measures to support the CAAP Actions for Transportation listed on the CAAP Checklist are designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establish bus-only lanes, and expand electric-vehicle charging infrastructure to further reduce emissions. These CAAP Actions promote mixed-use and transit-oriented development in City centers consistent with the existing LUE. These new structures could generate a new employee and residential population that may increase the demand for fire protection and police protection services; however, future discretionary projects that implement CAAP Actions would be evaluated for consistency with the adopted LUE for which impacts have already been analyzed in the 2019 Certified Program EIR. Service demands from future discretionary projects are not anticipated to result in additional impacts beyond what was anticipated in the 2019 Certified Program EIR but would be subject to project-specific CEQA review and project-specific mitigation measures, as applicable. Furthermore, these future discretionary projects do not constitute the proposed project for adoption of the CAAP.

Tier 1 measures required for the Waste sector include the recycling of appropriate materials and organics waste diversion. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion. Implementation of the Tier 1 measures would support CAAP Actions for Waste by requiring recycling compliance (W-1) and organic waste

diversion (W-2). Other CAAP Actions for Waste supported by the measures listed on the CAAP Checklist would expand communitywide participation in organic waste collection and diversion. Measures to support the CAAP Actions for Waste are not anticipated to result in significant population growth or associated increases in population that would require additional fire protection or police protection services.

Measures to support the CAAP Actions for new solar or organic waste facilities implemented by future discretionary projects may generate a limited number of new employees but would likely not impact the demand for public services as they would not result in the physical development of any buildings or structures, but rather would improve or retrofit existing development. In addition, all future discretionary projects that implement the CAAP Actions to achieve the City's GHG emissions targets would be reviewed under CEQA and under the City's development review process. All future discretionary projects would be subject to applicable local regulations, requirements, and development impact fees, as well as State and federal laws, including the payment of the adopted fire facilities and police facility impact fees. Per Chapter 18.23 (Fire Facilities Impact Fees) of the City's Municipal Code, the LBFD receives funding from Fire Facilities Impact fees, which are charged on all new residential and nonresidential development. These fees are calculated per dwelling unit or square footage. The funds obtained from the fire facilities impact fees are required to be used to fund costs of providing additional fire services necessary to accommodate such development. Future project applicants would also be required to pay the adopted police facilities impact fees. Per Chapter 18.22 (Police Facilities Impact Fees) of the City's Municipal Code, the LBPD receives funding from police facilities impact fees, which are charged on all new residential and non-residential development. These fees are calculated per dwelling unit or square footage. The funds obtained from the police facilities impact fees are required to be used to fund costs of providing additional police services attributed to new development, including the acquisition, construction, and furnishing of new law enforcement facilities, the purchasing of equipment and vehicles, and the funding of a master plan to identify capital facilities to serve the LBPD. Additionally, the LBFD and LBPD would also continue to be supported by Proposition H revenue, a per barrel tax on all oil producers in Long Beach; the City's General Fund; the City's Tidelands operation revenue; and other revenue sources. By following this process, sufficient revenue would be available for necessary service improvements to provide for adequate fire and police facilities and services.

In addition to the measures to support the CAAP Actions the proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. The Adaptation Actions provide general strategies that may be needed to lessen climate change impacts based on the CAAP Vulnerability Assessment. While the Adaptation Actions would not be required to meet the City's GHG reduction targets, they are listed in the CAAP Checklist for future discretionary projects to incorporate, as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP. Certain Adaptation Actions are also anticipated to be undertaken at a neighborhood or citywide scale to lessen the impacts of climate change on critical infrastructure and public facilities. The proposed CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact that would be accomplished through implementation of the Adaptation Actions. Additional analysis will be needed to develop specific adaptation approaches, and projects at specific locations and future

projects would be analyzed on a project level for consistency with policies and standards in the adopted LUE and UDE.

Therefore, with compliance with local regulations and requirements, and State and federal laws, impacts on fire protection and police protection facilities and services would be less than significant. No mitigation is required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to impacts on fire protection and police protection facilities and services. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in impacts to police or fire services. Therefore, the Safety Element update would have no impact on police or fire services, and no mitigation is required.

**Threshold 4.8.3:** **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *public schools*?**

Or

**Threshold 4.8.5:** **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for *any other public facility*?**

**CAAP: Less Than Significant Impact.** As discussed previously, the proposed project is a policy/planning action and approval of the CAAP at a programmatic level does not constitute approval of physical development necessary to implement CAAP Actions and future projects would still be subject to project-level CEQA review. Approval of the CAAP would not grant any entitlements for development that would result in changes to public services. The proposed project will also be implemented through the CAAP Checklist to be applied to future discretionary projects. The CAAP Checklist includes Tier 1 measures to support the CAAP Actions related to Building and Energy

designed to ensure that future discretionary projects reduce GHG emissions, such as through increased use of clean electricity or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Other Tier 1 measures would support Building and Energy CAAP Actions by requiring energy efficiency improvements and increased use of solar power and clean electricity sources. The CAAP Checklist also includes Tier 1 and Tier 2 measures to support Transportation CAAP Actions including expansion of the bicycle and pedestrian network and other measures to reduce vehicle miles traveled (VMT), increased housing and employment along major transit corridors, and increased density and mixing of land uses. However, any future discretionary projects that would implement measures to support the CAAP Actions would be consistent with the adopted LUE as analyzed in the 2019 Certified Program EIR and would therefore not result in increased population resulting in additional demand for public schools or other public facilities. Measures to support the CAAP Actions for Waste include encouraging recycling compliance and an expanded organic waste collection. These measures to support the CAAP Actions would not result in additional population growth or the need for additional school or library services.

Additionally, these measures to support the CAAP Actions would be implemented through future discretionary projects. All future discretionary projects that would implement the CAAP Actions would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted, including payment of school developer fees to LBUSD for the operation, maintenance, and development of schools to accommodate future student enrollment and any required mitigation to reduce impacts on library services. As noted above, the CAAP would promote the development of renewable energy and separated waste collection. Most of these new facilities would be constructed within or on existing buildings (e.g., rooftops). Their installation within or on existing buildings would likely not result in new employees or associated increases in population. Any new facilities necessary to support these processes would be subject to project-level CEQA review. Therefore, new employment or population growth related to construction is not likely to substantially change the demand for schools or libraries that would demand new facilities. New mixed-use and transit-oriented development could generate a residential population that may increase the localized demand for schools or other public facilities in City centers due to a denser population. As noted previously, such development has been contemplated in the LUE and analyzed in the 2019 Certified Program EIR and adoption of the CAAP would not present additional impacts. All future development projects utilizing the CAAP Checklist would be subject to applicable local and State regulations, requirements, and development impact fees for schools or other public facilities.

The proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. While incorporation of Adaptation Actions strategies would not be required to meet the City's GHG reduction targets, they are included on the CAAP Checklist for future discretionary projects to implement as applicable and could help lessen the impacts of climate change on future development projects and the community. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessen the impacts of climate change on critical infrastructure and public facilities. The CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations and future development would be analyzed on a project level for consistency with policies and standards in the adopted LUE.

With compliance with local and State regulations and requirements, potential impacts on public schools or other public facilities would be less than significant. No mitigation is required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to impacts on public schools or other public facilities. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in impacts to public services. Therefore, the Safety Element Update would have no impact on public schools or other public facilities, and no mitigation is required.

**Threshold 4.8.4:** **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks;**

**CAAP: Less Than Significant Impact.** As discussed previously, the proposed project is a policy/planning action and future projects would still be subject to project-level CEQA review. Approval of the CAAP would not grant any entitlements for development that would result in changes to public services. The proposed project will also be implemented through the CAAP Checklist to be applied to future discretionary projects. The CAAP Checklist includes Tier 1 measures to support the CAAP Actions related to Building and Energy are designed to ensure that future discretionary projects reduce GHG emissions, such as through increased use of clean electricity or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Other Tier 1 measures would support the Building and Energy CAAP Actions by requiring energy efficiency improvements and the increased use of solar power and clean electricity sources. Most of these new facilities would be constructed within or on existing or proposed buildings (e.g., rooftops). Their installation would likely not result in new employees or associated increases in population that would require additional employees or result in additional residents that would impact the provision of parks within the City. The CAAP Checklist also includes Tier 1 and Tier 2 measures to support Transportation CAAP Actions including expansion of the bicycle and pedestrian network and other measures to reduce VMT. The Transportation measures to support the CAAP Actions would promote increased housing and employment along major transit corridors and increased density and mixing of land uses; however, such development would be consistent with the adopted LUE and would, therefore, not result in increased population resulting in additional demand for or adequate provision of parks. The measures to support the CAAP Actions for Waste include encouraging

recycling compliance and an expanded organic waste collection. The CAAP Actions would not result in additional population growth or the need for additional park facilities.

Additionally, these measures to support the CAAP Actions would be implemented through future discretionary projects subject to review under CEQA. Future discretionary projects that would implement the CAAP Checklist for streamlining for GHG analysis would be required to comply with any requirements in effect when the review is conducted, including the payment of any required park fees as outlined in Section 18.18 of the City's Municipal Code, which would reduce any impacts of future discretionary projects on parks facilities by funding improvements as needed.

The proposed CAAP also includes Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. While incorporation of Adaptation Actions strategies would not be required to meet the City's GHG reduction targets, they are included in the CAAP Checklist for future discretionary projects to implement as applicable and could help lessen the impacts of climate change on future development projects and the community. Other Adaptation Actions are anticipated to be undertaken at a neighborhood or citywide scale, such as Adaptation Actions related to lessen the impacts of climate change on critical infrastructure and public facilities including lessening the impacts on parks facilities. The CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations and future development would be analyzed on a project level.

With compliance with local and State regulations and requirements, impacts on parks facilities would be less than significant. No mitigation is required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts on parks facilities. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in impacts to public services. Therefore, the Safety Element update would have no impact on parks, and no mitigation is required.

#### 4.8.7 Level of Significance Prior to Mitigation

The proposed project would result in less than significant impacts related to public services, and no mitigation is required.

#### **4.8.8 Compliance Measures and Project Design Features**

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action, does not include any project design features related to public services.

#### **4.8.9 Mitigation Measures**

The proposed project would not result in any significant adverse impacts related to public services, and no mitigation would be required.

#### **4.8.10 Level of Significance after Mitigation**

There would be no significant unavoidable adverse impacts of the proposed project related to public services, and no mitigation would be required.

#### **4.8.11 Cumulative Impacts**

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for public services. The planning area includes the entire 50 square miles within the limits of the City of Long Beach; therefore, the cumulative impact area for public services is listed below for each individual public service provider. The geographic area for cumulative analysis of fire protection services is defined as the Lbfd service territory, which is defined as the City of Long Beach. The geographic area for cumulative analysis of police protection is defined as the service area for the LBPD, which is also defined as the City of Long Beach. The geographic area for the cumulative analysis of public schools is defined as the service territory for the LBUSD.

As stated previously, implementation of the CAAP would be consistent with the adopted LUE. Furthermore, future discretionary projects to implement CAAP Actions and Adaptation Actions would be subject to project-level CEQA review as required, and General Plan consistency analysis, including the adopted LUE. Therefore, any service demands from future discretionary projects that implement measures to support the CAAP Actions or Adaptation Actions are not anticipated to result in additional impacts beyond that analyzed in the 2019 Certified Program EIR. Additionally, future discretionary projects would be subject to project-specific mitigation measures as applicable. Implementation of the measures to support the CAAP Actions are not anticipated to result in a population increase greater than projected for the buildout of the adopted LUE because the proposed CAAP would not change local land use plans but rather is designed to facilitate implementation of the LUE. Potential future facilities supported by the measures to support the CAAP Actions would result in only minor employment increases and associated population growth already anticipated by the adopted LUE. Furthermore, the proposed CAAP supports existing land use plans and policies that seek to concentrate the expected population growth along transit corridors. Adaptation Actions would be implemented to lessen the impacts of climate change on existing and new development in the City. Densifying the population along transit corridors could result in a localized incremental increase demand for fire protection, police protection, schools, and other public facilities within the area; however, this would be the result of existing land use plans and policies and not an incremental change brought about by the CAAP. Further, the proposed CAAP

would not change the adopted LUE already analyzed in the 2019 Certified Program EIR. The project would also bring the General Plan into compliance with a number of State laws including relating to climate change and resiliency through the proposed Safety Element Update, which as a planning/policy action would not facilitate or entitle any physical development that would result in impacts to public services. Therefore, the proposed project's contribution to fire, police protection, school, parks, and other public facility impacts would not be cumulatively considerable, and no mitigation would be required.

## 4.9 RECREATION

This section of the Draft Subsequent Environmental Impact Report (SEIR) analyzes the potential recreation impacts associated with implementation of the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update Project (proposed project). This section also addresses the proposed impacts to recreation resources with consideration of local and State policies. The analysis in this section is based on the Open Space and Recreation Element of the City of Long Beach (City) General Plan and the Long Beach Department of Parks, Recreation, and Marine Departmental Strategic Plan. These documents are available for review at the City of Long Beach Department of Development Services and on the City’s website. As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Therefore, the analysis in this SEIR focuses on the potential impacts from the measures included in the CAAP Consistency Review Checklist (CAAP Checklist) required for future discretionary projects, as well as the potential programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.9.1 Scoping Process

The City of Long Beach received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this SEIR. No comment letters included comments related to recreation.

### 4.9.2 Existing Environmental Setting

#### 4.9.2.1 Existing Planning Area

The CAAP and Safety Element Update address all land within the City’s jurisdictional limits. Throughout this Draft SEIR, these areas are referred to as the “planning area.”

The planning area encompasses 50 square miles (approximately 33,000 acres) within the limits of the City of Long Beach (excluding the City of Signal Hill, which is completely surrounded by the City of Long Beach) in the southern region of Los Angeles County. The planning area is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton, Paramount, and Bellflower; and on the east by the Cities of Lakewood, Hawaiian Gardens, Cypress, Los Alamitos, and Seal Beach. Additionally, the City of Signal Hill is centrally located within the planning area and is completely surrounded by development in the City of Long Beach.

#### 4.9.2.2 Overview of Existing Recreational Environment

According to the City of Long Beach General Plan Open Space and Recreation Element (2002), the City maintains 94 parks encompassing 1,413 acres. In addition to the City parks, Long Beach also offers beaches, golf courses, and water recreational opportunities that contribute additional available parkland, totaling 2,614 acres. The Long Beach Parks, Recreation, and Marine Department (LBPRM) owns and maintains 26 community centers, two historic sites, two major tennis centers,

one municipal golf course, the Long Beach Animal Care Services Bureau, the largest municipally operated marina system in the nation with 3,100 boat slips, and six miles of beaches.

The types of park and recreational opportunities available to the City’s residents and visitors are summarized below.

- Mini Parks are less than 2 acres and serve residents within an eighth-mile radius. These parks include landscaping irrigation, walking paths, seating areas, picnic tables, tot lots, and sculptures/art.
- Neighborhood Parks average 8 acres and serve residents within a quarter-mile to half-mile radius. They include all of the uses within Mini Parks and recreation fields, courts and rinks, water features, libraries, daycare centers, community centers, and restroom buildings. Building coverage in neighborhood parks is limited to 7 percent of the total park area.
- Community Parks average 35 acres in size and serve neighborhoods within a 1-mile radius. These parks focus on community recreation, including sports fields, open space, and swimming pools. Building coverage in community parks is limited to 10 percent of the total park area.
- Greenway Parks are undeveloped green space, which connect recreation opportunities throughout a community. Building coverage is limited to 1 percent of the total park area.
- Special Use Parks provide unique cultural heritage and/or educational features that attract a broad local and regional audience. Significant development features are determined on a case-by-case basis with community input and approved by the City Council.
- Regional Parks are a minimum of 175 acres in size and serve communities within a half-hour drive time. Permitted uses include all uses allowed within community parks, and building coverage is limited to 2 percent of the total park area.

The total acreage of the types of parks and recreational opportunities available to the City’s residents and visitors are detailed further in Table 4.9.A, below.

**Table 4.9.A: City of Long Beach Parks and Recreation**

Park Category	Number of Parks	Total Acres
Mini Parks	22	21
Neighborhood Parks	19	147
Community Parks	13	464
Greenway Parks	9	71
Special Use Parks	28	310
Ranchos	2	12
El Dorado Regional Park	1	401
Beaches	--	247
Golf Courses	--	568
Water Recreation (Alamitos Bay and Downtown Marina Surface Areas)	--	373
<b>Total</b>		<b>2,613 acres</b>

Source: City of Long Beach General Plan Open Space and Recreation Element (2002).

### 4.9.3 Regulatory Setting

#### 4.9.3.1 State Regulations

**California Coastal Act.** The Recreation Policies contained in Article 3 of the California Coastal Act are intended to provide protection for suitable oceanfront land to be used for recreational purposes as well as maintaining upland areas to support coastal recreation uses, where feasible. The policies prioritize water-oriented recreational activities and encourage increased recreational boating use of coastal waters by developing support facilities. The policies also place priority on the use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industries.

**Mitigation Fee Act.** The California Mitigation Fee Act, Government Code Sections 66000, et seq., allows cities to establish fees that are imposed on development projects for the purpose of mitigating the impact that the projects have on the city's ability to provide specified public facilities. In order to comply with the Mitigation Fee Act the city must follow four primary requirements: (1) make certain determinations regarding the purpose and use of a fee and establish a nexus or connection between a development project or class of project and the public improvement being financed with the fee; (2) segregate fee revenue from the General Fund in order to avoid commingling of capital facilities fees and general funds; (3) for fees that have been in the possession of the city for five years or more and for which the dollars have not been spent or committed to a project, the city must make findings each fiscal year describing the continuing need for the money; and (4) refund any fees with interest for developer deposits for which the findings noted above cannot be made.

**California Public Park Preservation Act.** The primary instrument for protecting and preserving parkland in the State is California's Public Park Preservation Act of 1971. Under Public Resources Code (PRC) Sections 5400–5409, cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation, land, or both, are provided to replace the parkland acquired. This ensures no net loss of parkland and facilities.

#### 4.9.3.2 Local Regulations

**City of Long Beach Open Space and Recreation Element.** The Long Beach City Council adopted the most recent Open Space and Recreation Element of the General Plan on October 15, 2002. The following policies and goals/objectives are applicable to the analysis of parks and recreational facilities for the proposed project:

**Goal/Objective 4.5:** Make all recreation resources environmentally friendly and socially and economically sustainable.

**Goal/Objective 4.6:** Increase recreation resources and supplement publicly owned recreation resources with privately owned recreation resources.

**Goal/Objective 4.7:** Fully maintain public recreation resources.

**Goal/Objective 4.9:** Connect recreation open spaces with greenway linkages.

**Goal/Objective 4.10:** Provide access to recreation resources for all individuals in the community.

**Policy 4.2:** Protect public parkland from intrusive, non-recreational uses.

**Policy 4.3:** Keep parklands open and green by limiting the amount of parking lot and building coverage areas within parks.

**Policy 4.4:** Ensure that the general plan and zoning are consistent for all recreation open space locations and uses.

**Policy 4.5:** Replace any displaced publicly owned recreation open space on an acre per acre basis, in kind, within areas of the City most underserved by recreation open space.

**Policy 4.10:** Require all new developments to provide usable open space tailored to the recreational demands they would otherwise place on public resources.

**Policy 4.14:** Develop an open space linkage/trails plan.

**Policy 4.15:** Ensure that the city's Parks, Recreation, and Marine Advisory Committee reviews all development proposal on City parklands prior to any City action to approve such projects.

**City of Long Beach Municipal Code.** The Long Beach Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the City's General Plan and proposed development projects. The following provision from the City's Municipal Code related to recreational facilities is relevant to the future discretionary projects that would implement CAAP Actions.

- Title 18 (Buildings and Construction), Chapter 18.18 (Park and Recreation Facilities Fee). The City's Park and Recreation Facilities Fee was adopted pursuant to the California Mitigation Fee Act. It imposes a park fee on new residential development. The purpose of the fee is to ensure that the parkland and recreational facility standards established by the City are met.

**City of Long Beach Parks, Recreation, and Marine Strategic Plan.** The City Department of Parks, Recreation, and Marine developed a Departmental Strategic Plan in February 2003. The Departmental Strategic Plan assessed recreation needs and objectives Citywide. The following policies and goals/objectives are applicable to the analysis of parks and recreational facilities:

**Strategy 1.2:** Improve access to city parks in Long Beach.

**Strategy 2.2:** Focus on improving the condition of Department Parks and Recreational Facilities.

**Strategy 3.1:** Establish lifetime use opportunities. Recreation programs and facilities will be designed to develop and serve a lifetime user through active, passive, and educational experiences.

**City of Long Beach General Plan Land Use Element.** The City’s Land Use Element (2019) formulated the following broad-range goals guiding land use in the City: manage growth, encourage economic development, revitalize the Downtown area, allow for the construction of new housing, encourage the development of affordable housing, emphasize strong neighborhoods, maintain existing public facilities, and maintain and/or improve the circulation system. The Land Use Element introduced the concept of “PlaceTypes,” which replaced the prior approach of segregating property within the City through traditional land use designations and zoning classifications. The following policies and strategies are applicable to the analysis of parks and recreational facilities:

**LU Policy 11-5:** Ensure neighborhoods are accessible to open spaces, parks, trails and recreational programs that encourage physical activity and walkability.

**LU Policy 18-10:** Prioritize vacant and underutilized land for the development of new green space, including parks, community gardens and local urban farms in park-poor communities.

**LU Policy 18-11:** Identify and inventory potential community garden or urban farm sites within existing parks, public easements, rights-of-way, and schoolyards, and prioritize site use as community gardens in appropriate locations.

**LU Policy 19-2:** Explore opportunities to create mini-parks and parklets within urbanized and growth areas of the City.

**City of Long Beach General Urban Design Element.** The Urban Design Element (2019) defines the physical aspects of the urban environment. Specifically, the Urban Design Element enhances the City’s PlaceTypes established in the Land Use Element (2019) by creating great places; improving the urban fabric, and public spaces; and defining edges, thoroughfares, and corridors. By improving the urban fabric, the City would allow for new development that would complement the existing historical development while serving as a unique and distinctive feature of the City. The following strategies and policies are applicable to the analysis of parks and recreational impacts:

**STRATEGY No. 30:** Provide greater access to the open space network to promote pedestrian and bicycle activity, to support the health and well-being of residents, and to increase opportunities for recreation.

- **Policy UD 30-1:** Preserve and enhance access to existing open space through improvements to existing facilities and wayfinding programs for new and existing open spaces.
- **Policy UD 30-2:** Seek opportunities to provide new publicly accessible open spaces and linkages to the greater open space network within residential projects.
- **Policy UD 30-3:** Look for opportunities on underutilized streets to be repurposed, where unused roadway can become open space (i.e., an enlarged parkway, greening unpaved alleys, linear or pocket park).
- **Policy UD 30-4:** Encourage projects to integrate required open space with a beneficial relationship to the public realm (e.g., connecting a paseo to the sidewalk, providing a layered

landscape design and private patios along the sidewalk, connecting an internal courtyard visually or physically to the sidewalk).

#### 4.9.4 Methodology

The effects of the proposed CAAP and Safety Element Update are evaluated below to determine whether they would result in a significant adverse impact on the environment. The impact analysis presented in this section is based on the effect that implementation of the proposed project would have on recreational facilities and the provision of recreational opportunities and services.

##### 4.9.4.1 Analysis Approach

Because the proposed project under evaluation in this Draft SEIR includes both the proposed CAAP and Safety Element Update of the City's General Plan, and because specific design plans for future discretionary projects that may be facilitated by approval of the proposed project are not known at this time, the effects to parks and recreational facilities of the proposed project are evaluated on a programmatic level.

#### 4.9.5 Thresholds of Significance

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

**Threshold 4.9.1:** Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

**Threshold 4.9.2:** Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

#### 4.9.6 Project Impacts

**Threshold 4.9.1:** Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

OR

**Threshold 4.9.2:** Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

**CAAP: Less Than Significant Impact.** The proposed project includes the proposed CAAP, which was included as a mitigation measure in the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development, reduce the City's greenhouse

gas (GHG) emissions and minimize the impacts of climate change on the community. The proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development that would include the construction of recreational facilities or result in the increased use of existing parks or other recreational facilities. Implementation of certain CAAP Actions by the City or other agencies, such as performance of municipal energy and water audits (BE-7), may not be subject to discretionary approval and project-level CEQA review. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA streamlining for GHG analysis. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would help achieve the City's GHG emissions targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a project does not include specific Tier 1 measures, equivalent measures for GHG emission reductions backed by substantial evidence must be provided for the project to utilize the Checklist in lieu of a project-level GHG analysis.

Tier 1 measures are required because they were quantified as part of the City's GHG reduction pathway for new development. Tier 1 measures or equivalent strategies would also be required for other improvements to existing development to demonstrate consistency with the goals and policies of the CAAP. Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. There are no Tier 2 measures identified for the Building and Energy sector. Implementation of these measures would support the CAAP Actions for Building and Energy by requiring increased access to and incentives for clean electricity (BE-1 and BE-5), and the increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures. Other Building and Energy CAAP Actions, supported by the measures listed on the CAAP Checklist, would increase energy efficiency of existing facilities, including City recreation facilities, and electrify new residential and commercial buildings. Most of these improvements would be constructed within or on existing or proposed buildings (e.g., rooftops). Their installation would likely not result in new employees and associated increases in population that would increase the use of existing parks or other recreational facilities or require the construction of new recreational facilities.

Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 2 measures for the Transportation sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support CAAP Actions for Transportation by improving transit service (T-1), providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5), complying with City TDM requirements (T-7), and complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to Senate Bill (SB) 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and

residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Similar to the Building and Energy CAAP Actions above, future projects that include the development of new transit facilities and increased residential, commercial, and mixed-use development would be evaluated for transit service at the time such discretionary projects are submitted for review and approval. Other Tier 2 measures to support the CAAP Actions for Transportation listed on the CAAP Checklist are designed to focus anticipated increased housing and employment density along major transit corridors, increase rapid bus service, establish bus-only lanes, and expand electric-vehicle charging infrastructure to further reduce emissions. These CAAP Actions promote mixed-use and transit-oriented development consistent with the adopted Land Use Element (LUE) including by promoting infill and protecting existing open spaces and support the policies and goals of the City's Open Space and Recreation Element related to providing and improving pedestrian and bicycle facilities within the City. Future discretionary projects for mixed-use and transit-oriented development could generate a new employee and residential population that may result in the increased use of existing parks and other recreational facilities; however, these future discretionary projects that would implement CAAP Actions would be subject to review under CEQA and consistency with the adopted LUE; therefore, CAAP Actions for Transportation are not anticipated to result in increases in population that would result in the increased use of existing parks and other recreational facilities.

Tier 1 measures required for the Waste sector include the recycling of appropriate materials and organics waste diversion. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion. Implementation of the Tier 1 measures would support CAAP Actions for Waste by requiring recycling compliance (W-1) and organic waste diversion (W-2). Other CAAP Actions for Waste supported by the measures listed on the CAAP Checklist would expand communitywide participation in organic waste collection and diversion. Implementation of Tier 1 and Tier 2 measures to support CAAP Actions for Waste for future discretionary projects are not anticipated to result in increases in population that would result in the increased use of existing parks and other recreational facilities.

Measures to support the CAAP Actions for new on-site solar or organic waste diversion implemented by future discretionary projects may generate a limited number of new employees but this limited number of employees would likely not result in the increased use of existing parks and other recreational facilities. Further, it is unlikely that these temporary employees would relocate to the City and create additional demand for recreational facilities. All future discretionary projects that utilize the CAAP Checklist to achieve the City's GHG emissions targets would be reviewed under CEQA and would be required to undergo the Site Plan Review process. Additionally, all future discretionary projects would be subject to applicable local regulations, requirements, and development impact fees, as well as State and federal laws, including the payment of any required park fees as outlined in Section 18.18 of the City's Municipal Code, which would reduce any impacts of future discretionary projects on parks and recreational facilities by funding improvements as needed.

In addition to measures that support the CAAP Actions related to Building and Energy, Transportation, and Waste that would apply to future development to achieve the GHG emissions target of the CAAP, the proposed CAAP also identifies Adaptation Actions related to extreme heat,

air quality, drought, and sea level rise/flooding. The Adaptation Actions provide general strategies that may be needed to lessen climate change impacts based on the CAAP Vulnerability Assessment. While the Adaptation Actions would not be required to meet the City's GHG reduction targets, they are listed in the CAAP Checklist for future discretionary projects to incorporate as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP. Adaptation Actions are also anticipated to be undertaken at a neighborhood or citywide scale to lessen the impacts of climate change on critical infrastructure and public facilities including to minimize impacts on parks and recreational facilities. The proposed CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact that would be accomplished through implementation of the Adaptation Actions. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations and future projects to implement the CAAP would be analyzed on a project level pursuant to CEQA including for consistency with policies and standards in the City's General Plan.

Therefore, the proposed project would result in less than significant impacts related to the increased use of existing parks or other recreational facilities and the construction or expansion of recreational facilities. No mitigation is required.

Further, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to the use or construction of parks and other recreational facilities. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in impacts to parks or recreational facilities. Therefore, the Safety Element update would have no impact on parks and recreational facilities, and no mitigation is required.

#### **4.9.7 Level of Significance Prior to Mitigation**

The proposed project would result in less than significant impacts related to parks and recreational facilities, and no mitigation is required.

#### **4.9.8 Compliance Measures and Project Design Features**

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action, does not include any project design features related to parks and recreational facilities.

#### 4.9.9 Level of Significance after Mitigation

There would be no significant unavoidable adverse impacts of the proposed project related to parks or recreational resources, and no mitigation would be required.

#### 4.9.10 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for parks and recreational facilities. The planning area includes the entire 50 square miles within the limits of the City of Long Beach; therefore, the cumulative impact area for parks and recreational facilities is the City of Long Beach.

As stated previously, the proposed project is considered a policy/planning action and does not include any physical improvements or development that would include recreational facilities or result in the increased use of existing neighborhood and regional parks or other recreational facilities. Future projects to implement CAAP Actions would be subject to project-level CEQA review as required. The proposed CAAP would be consistent with the adopted LUE, and thus any additional demand for parks and recreational facilities that may result from future discretionary projects that implement the measures to support the CAAP Actions or Adaptation Actions would not result in an additional impact beyond that analyzed in the 2019 Certified Program EIR. Additionally, implementation of the measures to support the CAAP Actions would not result in a population increase greater than projected for the buildout of the adopted LUE because the proposed CAAP would not change local land use plans. Potential future facilities developed as part of future discretionary projects that implement the measures to support the CAAP Actions would result in only minor employment increases and associated population growth already anticipated by the General Plan LUE. Adaptation Actions would be implemented to lessen the impacts of climate change on existing and new development in the City, including parks and recreational facilities. The project would also bring the General Plan into compliance with a number of State laws including relating to climate change and resiliency through the proposed Safety Element Update, which as a planning/policy action would not facilitate or entitle any physical development that would result in impacts to recreational facilities. Therefore, the proposed project's contribution to parks and recreational facility impacts would not be cumulatively considerable, and no mitigation would be required.

## 4.10 TRANSPORTATION

### 4.10.1 Introduction

This section analyzes the existing and planned transportation/traffic and circulation conditions for the planning area, and identifies circulation impacts that may result from implementation of the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update (proposed project). The analysis contained in this section is based on the Draft *Climate Action and Adaptation Plan* (Appendix B), the Draft *Safety Element Update* (Appendix C), and the *Climate Action and Adaption Plan Consistency Review Checklist: Technical Support Documentation* (ESA 2021) (Appendix D). As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Therefore, the analysis in this Subsequent Environmental Impact Report (SEIR) focuses on the potential impacts from the measures included in the CAAP Consistency Review Checklist (CAAP Checklist) required for future discretionary projects, as well as the potential programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.10.2 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this Draft SEIR. One comment letter included comments related to transportation.

The letter from the California Department of Transportation (Caltrans) received on September 23, 2021, stated Caltrans' support of the City's efforts to reduce greenhouse gas (GHG) emissions and provided information on additional resources related to policies, plans, guidance, and strategies related to climate change impacts and adaptation strategies.

### 4.10.3 Existing Environmental Setting

#### 4.10.3.1 Existing Circulation System

The City has adopted a context-sensitive street classification plan emphasizing mobility for different roadway users. These classifications range from regional corridors designed for intraregional travel to local streets discouraging high volumes of through traffic to enhance the ability to serve bicycles and pedestrians. The circulation system forms a grid network that is denser in the downtown area where a greater density of land uses require support from a greater density of roadways.

#### 4.10.3.2 Existing Transit Service

Long Beach is served by a robust network of transit options from multiple operators, including rail, fixed-route bus service, shuttles, and boats. Long Beach has a municipal transit agency, Long Beach Transit (LBT) (which provides 34 fixed-route bus routes), the free Downtown Passport circulator, demand-response transit, the AquaLink water bus between Alamitos Bay Landing and downtown Long Beach, and the AquaBus water taxi between marinas and docks along the downtown waterfront.

Other transit operators in Long Beach include the Orange County Transportation Authority (OCTA), Torrance Transit, the Los Angeles Department of Transportation (LADOT), and the Los Angeles County Metropolitan Transportation Authority (Metro). Metro operates fixed-route local and express bus service on a limited number of routes within Long Beach. Metro also operates the Blue Line passenger rail service between downtown Long Beach and downtown Los Angeles. The Blue Line connects to the larger and expanding Metro Rail system, providing a convenient transit link between Long Beach and the larger metropolitan region.

#### 4.10.3.3 Existing Bicycle Network

It is the stated priority of the City to provide alternative modes of transportation in place of private automobiles. As part of this effort, the City has established a bicycle transportation network and has adopted a Bicycle Master Plan (2001), which was updated in 2017 at which time it became an appendix to the Mobility Element (2013) of the General Plan.

The City has 127.1 miles of different types of bike paths, including 34.7 miles of Class I bikeways, 59.9 miles of Class II bikeways, 28.1 miles of Class III bike routes, and 4.4 miles of Class IV separated bikeways,<sup>1</sup> as described further below.

- **Class I:** Various called a bike path or multi-use trail. Provides for bicycle travel on a paved right of way completely separated from any street or highway.
- **Class II:** Referred to as a bike lane. Provides a striped lane for one-way travel on a street or highway.
- **Class III:** Referred to as a bike route or sharrow. Provides for shared use with pedestrian or motor vehicle traffic.
- **Class IV:** These protected bike lanes provide a physical buffer between vehicle travel lanes and on-street bike lanes.

To provide connections to other transportation modes, bicycle racks are included at several of the transit stops within the City. In addition, the Long Beach Bikestation is located in downtown Long Beach, near the Metro Blue Line. The Bikestation provides valet bicycle parking, bicycle rentals, and other amenities. In 2016, the City also implemented Long Beach Bike Share, which provides 95 stations and 694 bikes available for rent throughout the City.

#### 4.10.3.4 Existing Pedestrian Network

The existing conditions within the City include an elaborate network of pedestrian facilities, such as sidewalk coverage, curb cuts, crosswalks, street lighting, landscaping, shared-use paths, promenades, recreational pathways, and signalized intersections that serve the needs of pedestrians.

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<sup>1</sup> City of Long Beach. Bicycle Master Plan, Table 3-4. 2017. February. Website: [http://longbeach.gov/globalassets/pw/media-library/documents/resources/general/bicycle-master-plan/bicycle\\_master\\_plan](http://longbeach.gov/globalassets/pw/media-library/documents/resources/general/bicycle-master-plan/bicycle_master_plan) (accessed October 15, 2021).

After adoption of the Mobility Element in 2013, two pedestrian plans were developed as technical appendices to the new element. Adopted in 2016, the Downtown and TOD (Transit-Oriented Development) Pedestrian Master Plan<sup>2</sup> focuses on the transit rich Downtown and around Metro Blue Line transit stops to provide policies, guidelines, and standards that ensure best practices for pedestrian design and identify catalytic infrastructure projects. Adopted in 2017, the Communities of Excellence in Nutrition, Physical Activity and Obesity Prevention (CX3) Pedestrian Plan<sup>3</sup> was developed in collaboration with the Health Department to guide the improvement of the walking environment in low-income neighborhoods within Central and West Long Beach. Buildings, sidewalk lighting, sidewalks, landscaping, and street furniture have also been implemented to encourage walking between the transit stations, housing, shopping, employment centers, and nearby recreation uses.

#### 4.10.4 Regulatory Setting

##### 4.10.4.1 Federal Regulations

There are no relevant federal traffic and circulation regulations applicable to the proposed project.

##### 4.10.4.2 State Regulations

**Congestion Management Program.** In June 1990, the passage of the Proposition 111 gas tax increase required urbanized areas in the State with a population of 50,000 or more to adopt a Congestion Management Program (CMP). The CMP is intended to link transportation, land use, and air quality decisions, as well as address the impact of local growth on the regional transportation system. State legislation requires that the CMP contain a process to analyze the impacts of land use decisions by local governments on the regional transportation system. For CMP purposes, the regional transportation system is defined by the legislation as all State highways and principal arterials. The identification and analysis of impacts along with estimated mitigation costs are determined with respect to this CMP Highway System.

In Los Angeles County, the CMP is the program by which County agencies have agreed to monitor and report on the status of regional roadways. As the Congestion Management Agency for Los Angeles County, Metro is responsible for the preparation of the CMP. The latest CMP (Metro 2010) states that a significant impact would occur if intersection level of service (LOS) with the project is identified as LOS F and the proposed project causes a 0.02 or greater increase in volume-to-capacity ratio. The CMP includes 10 monitored intersections within the City of Long Beach. These intersections are as follows:

- (8) Santa Fe Avenue/Pacific Coast Highway

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<sup>2</sup> Long Beach Development Services. 2016. City of Long Beach Downtown and TOD Pedestrian Master Plan Website: <https://www.longbeach.gov/lbds/planning/advance/general-plan/mobility/dt-tod-ped-master-plan/> (accessed October 15, 2021).

<sup>3</sup> Long Beach Development Services. 2017. City of Long Beach Department of Health and Human Services Healthy Active Long Beach Program Website: <https://www.longbeach.gov/globalassets/health/media-library/documents/healthy-living/individual/nutrition-and-physical-activity/cx3-pedestrianplan> (accessed October 26, 2021).

- (52) Orange Avenue/Pacific Coast Highway
- (54) Alamitos Avenue/7<sup>th</sup> Street
- (58) Alamitos Avenue/Shoreline Avenue-Ocean Boulevard
- (76) Redondo Avenue/7<sup>th</sup> Street
- (80) Lakewood Boulevard/Carson Street
- (84) Lakewood Boulevard/Willow Street
- (85) Pacific Coast Highway/Ximeno Avenue
- (92) Pacific Coast Highway/7<sup>th</sup> Street
- (100) Pacific Coast Highway/2<sup>nd</sup> Street

**Senate Bill 743.** On December 28, 2018, the California Office of Administrative Law cleared the revised *State CEQA Guidelines* for use. Among the changes to the *State CEQA Guidelines* was removal of vehicle delay and LOS from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled (VMT). Lead agencies are allowed to opt in to the revised transportation guidelines, but the new guidelines must be used starting July 1, 2020. The City's VMT CEQA Guidelines and Traffic Impact Analysis (TIA) requirements were presented to, and approved by, the Planning Commission on June 4, 2020, pursuant to Senate Bill (SB) 743.

**Senate Bill 99.** On August 30, 2019, Section 65302 of the Government Code was amended to require the identification of residential developments in any identified hazard areas that do not have at least two emergency evacuation routes.

**AB 747.** On October 7, 2021, Section 8589.5 of the Government Code was amended to require the safety element to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios.

#### 4.10.4.3 Local and Regional Policies and Regulations

**City of Long Beach General Plan Mobility Element.** In October 2013, the City approved the Mobility Element of the City's General Plan. The Mobility Element seeks to guide development and improvements to the existing circulation system. As previously stated, the Mobility Element establishes several goals aimed at improving the existing transportation system so that it is responsive to all travel modes.

The following transportation/traffic goals and policies in the City's Mobility Element are applicable to the proposed project:

**GOAL 1:** Create a safe, efficient, balanced, and multimodal mobility network.

#### **Mobility of People (MOP) Policies:**

- **MOP Policy 1-1:** To improve the performance and visual appearance of Long Beach's streets, design streets holistically using the "complete streets approach" which considers walking, those with mobility constraints, bicyclists, public transit users, and various other modes of mobility in parallel.

- **MOP Policy 1-12:** Continue to assist Long Beach Transit in implementing a comprehensive Citywide transit service that meets future needs.
- **MOP Policy 1-13:** Increase multimodal access to major employers and educational institutions, including Long Beach City College.
- **MOP Policy 1-14:** Use universal design techniques to accommodate pedestrians of all ages and abilities and ensure compliance with the Americans with Disabilities Act.
- **MOP Policy 1-17:** Develop land use policies that focus development potential in locations best served by transit.
- **MOP Policy 1-18:** Focus development densities for residential and nonresidential land uses around the eight Metro Blue Line stations within City boundaries.
- **MOP Policy 2-2:** Design the character and scale of the street to support its street type and place-type designation and overlay networks (for example, create a bike boulevard or bicycle-friendly retail district, transit street, or green street).
- **MOP Policy 2-15:** Ensure that all new development is consistent with the applicable provisions of the Bicycle Master Plan.
- **MOP Policy 5-2:** Reduce vehicle miles traveled (VMT) and vehicle trips through the use of alternative modes of transportation and Transportation Demand Management (TDM).
- **MOP Policy 6-12:** Promote transit-oriented development with reduced parking requirements around appropriate transit hubs and stations to facilitate the use of available transit systems.

**City of Long Beach General Plan Land Use Element.** The City's Land Use Element (2019) formulated the following broad-range goals guiding land use in the City: manage growth, encourage economic development, revitalize the Downtown area, allow for the construction of new housing, encourage the development of affordable housing, emphasize strong neighborhoods, maintain existing public facilities, and maintain and/or improve the circulation system. The Land Use Element introduced the concept of "PlaceTypes," which replaced the prior approach of segregating property within the City through traditional land use designations and zoning classifications.

The following strategies and policies are applicable to the analysis of transportation impacts for the proposed project:

**STRATEGY No. 1:** Support sustainable urban development patterns.

- **LU Policy 1-1:** Promote sustainable development patterns and development intensities that use land efficiently and accommodate and encourage walking.

**STRATEGY No. 7:** Implement the major areas of change identified in this Land Use Plan (Map LU-20).

- **LU Policy 7-6:** Promote transit-oriented development around passenger rail stations and along major transit corridors.
- **LU Policy 7-7:** Continue to develop the downtown into a city center that provides compact development, accommodates new growth, creates a walkable urban environment, allows for diversified businesses and is easily accessible to surrounding neighborhoods and regional facilities.
- **LU Policy 7-9:** Focus infill development in the downtown, Multi-Family residential neighborhoods and transit-oriented development areas, and along specific corridors.
- **LU Policy 7-11:** Support infill and transit-oriented development projects by utilizing available tools, such as public-private partnerships and assistance with land assembly and consolidation.

#### 4.10.5 Methodology

This analysis is based on a review of the transportation and traffic information contained in the relevant planning documents for the planning area and the *Climate Action and Adaption Plan Consistency Review Checklist: Technical Support Documentation* (Appendix D). Effects related to transportation and traffic are analyzed qualitatively and are focused on the proposed CAAP Actions and Adaptation Actions and these future actions' potential to impact existing transportation and traffic systems in the Planning Area. Implementation of CAAP Actions and Adaptation Actions by the City, other agencies, or private developers would be subject to review to determine if a project-level CEQA analysis is required. The CAAP Checklist provided in Appendix D translates the CAAP Actions and Adaptation Actions into project-level measures, to ensure future discretionary projects are consistent with the proposed CAAP's goals and policies to aid in reducing the City's GHG emissions and achieve the City's GHG target for 2030. The proposed CAAP includes a roadmap for implementing new policies, programs, incentives, requirements, projects, and initiatives in the immediate future, as well as longer-term actions that will need to be studied further while monitoring how the climate continues to change and evaluating the effectiveness of the actions taken.

Proposed updates to the Safety Element will incorporate climate adaptation and resiliency considerations and strategies associated with the CAAP. Several CAAP Actions are related to traffic and transportation in order to address vehicular emissions and their impacts on climate change.

##### 4.10.5.1 Analysis Approach

Because the proposed project under evaluation in this Draft SEIR includes both the proposed CAAP and Safety Element Update of the City's General Plan, and because specific design plans for future discretionary projects that may be facilitated by approval of the proposed project are not known at this time, the transportation effects of the proposed project are evaluated on a programmatic level based on the project's consistency with goals and policies established in the Land Use (2019), and the Mobility (2013) Elements of the City's General Plan and whether or not transportation impacts would result from implementation of the proposed project.

#### 4.10.6 Thresholds of Significance

The following thresholds of significance are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact with respect to transportation if it would:

- Threshold 4.10.1:** Conflict with program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Threshold 4.10.2:** Conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b);
- Threshold 4.10.3:** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Threshold 4.10.4:** Result in inadequate emergency access.

#### 4.10.7 Project Impacts

- Threshold 4.10.1:** **Would the project conflict with program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?**

**CAAP: Less Than Significant Impact.** The proposed project includes the proposed CAAP that was included as Mitigation Measure GHG-1 in the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development consistent with the adopted Land Use Element (LUE). Adoption of the proposed project does not constitute approval for any physical improvements or development. The proposed project would be implemented through the application of the CAAP Consistency Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would achieve the City's GHG emissions targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a project does not include Tier 1 measures, equivalent measures for GHG emission reductions must be provided for the project to utilize the Checklist in lieu of a project-level GHG analysis.

Tier 1 measures are required because they were quantified as part of the City's GHG reduction pathway for new development. Tier 1 measures or equivalent strategies would also be required for other improvements to existing development to demonstrate consistency with the goals and policies of the CAAP. Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. There are no Tier 2 measures identified for the Building and Energy sector. Implementation of these measures would support the CAAP Actions for Building and Energy by requiring increased access to and incentives for clean electricity (BE-1 and BE-5) and increase the use of solar panels and community solar (BE-2 and BE-3),

or equivalent alternative measures. Energy efficiency improvements such as rooftop solar and electric vehicle charging stations would require minor retrofits to existing facilities and would not result in substantial traffic-generating construction activities. Other Building and Energy CAAP Actions listed on the CAAP Checklist would increase energy efficiency of existing facilities, electrifying new residential and commercial buildings. Implementation of these measures to support the CAAP Actions with future discretionary projects would also not result in traffic-generating construction activities, as they are operational strategies to improve existing facilities and operations. Future discretionary projects that implement CAAP Actions would be evaluated for consistency with the adopted LUE for which impacts have already been analyzed in the 2019 Certified Program EIR. It should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. Therefore, future discretionary projects are not anticipated to result in additional circulation impacts beyond those anticipated in the 2019 Certified Program EIR but would be subject to project-specific CEQA review and project-specific mitigation measures, as applicable.

Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 2 measures for the Transportation Sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service (T-1), providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5), complying with City TDM requirements (T-7), and complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to SB 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Similar to the Building and Energy CAAP Actions, future projects that include the development of new transit facilities and residential, commercial, and mixed-use development would be evaluated for transit service at such time that discretionary projects are submitted for review and approval. Other Tier 2 measures to support the CAAP Actions for Transportation listed on the CAAP Checklist are designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establishing bus-only lanes, and expanding electric-vehicle charging infrastructure to further reduce emissions. Implementation of all measures to support the CAAP Actions related to transportation would be consistent with the goals and policies of the City's General Plan Mobility Element and Land Use Element, which encourage the expansion and improvements of transit, bicycle, and pedestrian networks, as well as increasing density and mixed land uses near transit corridors.

Tier 1 measures required for the Waste sector include recyclable materials recycling and organics waste diversion. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion. Implementation of the Tier 1 measures would support CAAP Actions for Waste include actions that encourage recycling compliance (W-1) and organic waste diversion (W-2). Incorporation of separated recycling and organics processes into the operations of future development projects is not anticipated to require any construction activities, as these programs would be implemented within existing facilities. Any future facilities that may be

necessary to support the increase in recycling or organics processing would be evaluated at the project level pursuant to CEQA. Other CAAP Actions for Waste supported by the measures listed on the CAAP Checklist would expand communitywide participation in organic waste collection and diversion.

As described above, measures to support the CAAP Actions would be implemented with future discretionary projects to ensure the City's GHG reduction targets are met. Measures to support the CAAP Actions would involve retrofits to existing buildings, new transit and waste facilities, and changes to the existing streetscape such as expanded bicycle and pedestrian networks. Although specific details are unknown, construction of these facilities may temporarily disrupt traffic flows on area roadways from the use of heavy-duty construction vehicles, and could temporarily disrupt alternative modes of transportation by blocking bicycle or pedestrian pathways or public transit lanes, or result in lane closures that could delay the movement of emergency vehicles. Construction that involves minor changes to the existing streetscape could result in the temporary closure of pedestrian and bicycle facilities. Depending on the intensity and magnitude of such activities, construction of future facilities promoted by the CAAP could conflict with applicable plans, ordinances, or policies related to the transportation circulation system temporarily during the construction period. However, these future improvements are not a part of the proposed CAAP, and all future discretionary projects that implement measures to support the CAAP Actions would be reviewed at the project level as required by CEQA and would also be required to undergo the Site Plan Review process. Future discretionary projects that utilize the CAAP Checklist for streamlining would be reviewed on a project-by-project basis, and mitigation would be identified during project-level review as appropriate. It should be noted that the construction of these future discretionary projects is not a part of the proposed project; they are future projects that would be incorporating measures to support the CAAP Actions, which in and of themselves do not involve the construction of buildings. Therefore, the proposed project would result in a less than significant impact related to conflicts with applicable plans, ordinances, or policies related to the transportation circulation system.

As described above, the proposed project includes measures to support the CAAP Actions related to Building and Energy designed to ensure that future discretionary projects contribute to a reduction in GHG emissions, such as through increased use of clean electricity or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Other measures to support the CAAP Actions are designed to ensure reductions in the use of energy for existing buildings, such as through energy efficiency improvements and the increased use of solar power and clean electricity sources. These new facilities would be constructed within or on existing or proposed buildings (e.g., rooftops) and would not result in new land uses that would generate new vehicle trips from employees, residents, or visitors that could result in traffic impacts. Measures to support the CAAP Actions related to Transportation include measures that encourage improved transit service (T-1) and expanded pedestrian (T-2) and bicycle (T-3) networks, which would encourage a shift in the modes used for transportation and reduce travel demand. Future discretionary projects that implement measures to support the CAAP Actions related to increased transit, bicycle, and pedestrian facilities would support the reduction in VMT. The measures to support the CAAP Actions for Waste include, but are not limited to, measures that encourage recycling compliance and

expanded organic waste collection, which may result in new facilities for organic waste processing. However, such new facilities would be subject to their own project-level CEQA review.

The proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. While the Adaptation Actions would not be required to meet the City's GHG reduction targets, the Adaptation Actions that could be incorporated into future development projects would also be listed on the CAAP Checklist because they may be applicable to future discretionary projects. Adaptation Actions that make it more comfortable and safe to walk or take transit, such as through increased tree canopy and bus shelter amenities, will also promote alternative forms of transportation and lessen transportation impacts. There is not sufficient information at this time to analyze potential future physical improvements that are suggested as Adaptation Actions in the CAAP as specific projects and locations are unknown. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future improvements would be analyzed on a project level pursuant to CEQA. Therefore, potential impacts of the Adaptation Actions would be less than significant, and no mitigation is required.

It should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in a significant and unavoidable impact for transportation impacts related to arterial intersections, CMP intersections, Caltrans ramp intersections, and Caltrans arterial and freeway facilities due to the proposed changes to existing land uses that would result from General Plan buildout conditions. However, as the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the significant and unavoidable impact identified in the 2019 Certified Program EIR. The proposed CAAP was included as Mitigation Measure GHG-1 for the 2019 Certified Program EIR in order to reduce GHG emissions associated with the General Plan buildout. As such, the proposed CAAP would result in a less than significant impact related to the generation of GHG emissions as it would serve to mitigate and reduce GHG emissions anticipated by the adopted LUE. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in traffic impacts. Therefore, the Safety Element Update would have no impact related to conflicts with applicable plans, ordinances, or policies related to the transportation circulation system, and no mitigation is required.

**Threshold 4.10.2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?**

**CAAP: Less Than Significant Impact.** *State CEQA Guidelines* Section 15064.3 subdivision (b) provides revised criteria for analyzing transportation impacts consistent with SB 743, which has been interpreted as removing vehicle LOS from consideration under CEQA. In lieu of vehicle LOS, VMT must be adopted as the measure of transportation impact by July 1, 2020. As discussed above,

Section 15064.3 subdivision (b) allows a lead agency to choose how to evaluate a project's VMT in absolute terms, per capita, per household, or in any other measure.

As described above, the proposed CAAP would promote a reduction of VMT, and a CAAP Action is designed to ensure the City implements SB743 (see T-9). To that end, the City adopted VMT guidelines in 2020 consistent with SB 743 and the proposed CAAP. The proposed project includes measures to support the CAAP Actions related to Building and Energy, which would be constructed within or on existing or proposed buildings (e.g., rooftops) and are not expected to result in additional VMT impacts. Measures to support the CAAP Actions related to Transportation include expansion of the bicycle and pedestrian network and other measures to reduce VMT, and increased housing and employment along major transit corridors and increased density and mixing of land uses. Development of housing and employment along transit centers would not result in additional impacts related to VMT beyond those anticipated in the adopted LUE and the 2019 Certified Program EIR; rather, the CAAP is designed to maximize GHG reduction, including through VMT reduction, as part of LUE implementation. In addition, future discretionary projects that implement measures to support the CAAP Actions related to increased transit, bicycle, and pedestrian facilities would also support reductions in VMT as analyzed in the 2019 Certified Program EIR. Measures to support the CAAP Actions for Waste include, but are not limited to, actions that encourage recycling compliance and expanded organic waste collection, which may result in new facilities for organic waste processing. However, such new facilities would be subject to their own project-level CEQA review.

The Tier 1 measures to support the CAAP Actions for Transportation included on the CAAP Checklist include measures that improve transit service (T-1). According to the *Climate Action and Adaptation Plan Consistency Review Checklist: Technical Support Documentation* (ESA 2021), the CAAP calculated GHG emission reductions for T-1 assuming a citywide reduction in light-duty VMT of one percent above all other assumed reductions including those anticipated by the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Transit improvements would influence vehicle travel patterns for both existing and new development, but new development would have the opportunity to better utilize transit improvements than much of the built environment in the City. For example, new development would locate jobs and residents near transit, offer transit subsidies, limit available parking, offer parking cash-out, and provide other design features and incentives to maximize transit use by future occupants, employees, and visitors. Consequently, new development is assumed to reduce total VMT by five percent compared to the General Plan LUE scenario, with implementation of the vehicle trip reduction features included in the proposed CAAP. This reduction would be achieved by a number of actions and design features included in the CAAP, such as through transportation demand management (TDM) plans. New development from 2015 to 2030 is estimated to produce an average light-duty VMT of 9.4 per service population or an average of approximately 266,000 total daily VMT. A five percent reduction in the 266,000 total daily VMT is equal to approximately 13,000 total daily VMT. In addition, as described above, the Adaptation Actions that would lessen the impacts of climate change are not anticipated to result in new development that would generate VMT. Adaptation Actions that make it more comfortable and safe to walk or take transit, such as through increased tree canopy and bus shelter amenities, will also promote alternative forms of transportation and lessen transportation

impacts. All future discretionary projects that implement Adaptation Actions would be subject to project-level CEQA review.

Because the proposed measures to support the CAAP Actions implemented with future discretionary projects would result in a decrease in VMT from existing conditions and compared to the adopted LUE, implementation of the proposed CAAP would have a less than significant impact related to *State CEQA Guidelines* Section 15064.3 subdivision (b). No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in traffic impacts. Therefore, the Safety Element Update would not result in any changes to VMT within the planning area and would have no impact related to conflicts with *State CEQA Guidelines* Section 15064.3 subdivision (b). No mitigation is required.

**Threshold 4.10.3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**CAAP: Less Than Significant Impact.** As discussed previously, adoption of the proposed CAAP does not constitute approval for any physical improvements or development, nor would it grant any entitlements for development that would result in increased design hazards. As described above, the proposed CAAP includes measures to support the CAAP Actions related to Building and Energy designed to ensure that future discretionary projects contribute to a reduction in GHG emissions, such as through increased use of clean electricity or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Other measures to support the CAAP Actions are designed to ensure reductions in the use of energy for existing buildings, such as through energy efficiency improvements and the increased use of solar power and clean electricity sources. Measures to support the CAAP Actions related to Transportation include expansion of the bicycle and pedestrian network and other measures to reduce VMT, and increased housing and employment along major transit corridors and increased density and mixing of land use. Measures to support the CAAP Actions for Waste include encouraging recycling compliance and expanded organic waste collection.

As noted above, most of the Tier 1 and Tier 2 measures, or equivalent replacement strategies required to support the CAAP Actions that would be implemented with future discretionary projects would be constructed within or on existing or proposed buildings (e.g., rooftops). These minor improvements to existing or proposed structures would not change the existing area roadways and would therefore not cause a substantial increase in hazards due to design features or incompatible uses.

Several measures to support the CAAP Actions encourage a shift in the modes used for transportation to reduce travel demand. These measures to support the CAAP Actions promote minor changes to the existing streetscape, such as adding transit, pedestrian, and bicycle facilities to promote increased transit accessibility. In general, these roadways and transit improvements would

decrease vehicle, bicyclists, and pedestrian conflicts. Any streetscape improvements involving transit, pedestrian, and bicycle facilities would be required to comply with applicable design guidelines for roadways and transportation facilities. With compliance with State and local regulations and design guidelines, roadways and transit improvements promoted by the CAAP would not substantially increase hazards due to design features or incompatible uses.

Future discretionary projects that would implement measures to support the CAAP Actions related to solid waste or similar facilities would not likely change the existing area roadways causing a substantial increase in hazards due to design features or incompatible uses. Although the locations of these facilities are currently unknown, all future discretionary projects that would implement measures to support the CAAP Actions would be subject to project-level review under CEQA and required to comply with any requirements in effect when the review is conducted. Future discretionary projects that implement measures to support the CAAP Actions would also be reviewed on a project-by-project basis for compatibility with adjacent land uses, and mitigation would be identified during project-level review as appropriate. It should be noted that the construction of any future discretionary projects are not a part of the CAAP project; they are future projects that utilize the CAAP Checklist for GHG analysis streamlining. Therefore, impacts related to potential hazards due to incompatible uses are considered to be less than significant, and no mitigation is required.

The CAAP Checklist also includes Adaptation Actions, which provide general strategies for potential future projects that may lessen climate change impacts in particular locations throughout the City. While the Adaptation Actions are not required for future discretionary projects to meet the City's GHG reduction goals, they would be encouraged on the CAAP Checklist because they may be applicable to future discretionary projects so that future discretionary projects are encouraged to incorporate relevant Adaptation Actions. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future discretionary projects would be analyzed on a project level for consistency with local design guidelines for roadways and transportation facilities as applicable. Therefore, potential design-related hazard impacts of the Adaptation Actions would be less than significant, and no mitigation is required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to potential design-related hazards. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in potential hazards. Therefore, the Safety Element Update would have no impact related to potential hazards due to incompatible uses, and no mitigation is required.

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**Threshold 4.10.4: Would the project result in inadequate emergency access?**

As discussed previously, adoption of the proposed CAAP does not constitute approval for any physical improvements or development, nor would it grant any entitlements for development that would result in inadequate emergency access.

As noted above, most of the measures to support the CAAP Actions that would be implemented with future discretionary projects would be constructed within or on existing or future buildings (e.g., rooftops). These minor improvements to existing or future structures would not result in inadequate emergency access as these facilities would be additions to existing structures, or facilities included as part of proposed structures. Further, there are several measures to support the CAAP Actions that encourage improved transit service (T-1) and expanded pedestrian (T-2) and bicycle (T-3) networks, which would encourage a shift in the modes used for transportation and reduce travel demand. These measures to support the CAAP Actions promote minor changes to the existing streetscape, such as expanded bicycle and pedestrian networks and transit improvements. In general, these transit, pedestrian, and bicycle improvements would not deteriorate accessibility or result in inadequate emergency access but instead would promote alternatives to single-occupancy vehicle travel. Additionally, the CAAP promotes a reduction of VMT, which would reduce regional traffic, thus reducing congestion on major arterials and highways, which would ease response times for emergency vehicles in general. Furthermore, the future discretionary projects that implement Adaptation Actions may improve infrastructure for resiliency to sea level rise and climate change impacts, which may improve emergency access. Therefore, impacts related to emergency access would be less than significant, and no mitigation is required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to emergency access. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in emergency access impacts. Furthermore, updates to the Safety Element reflect the requirements of SB 99 and AB 474, described in Section 4.10.4 above, related to identification of residential developments in any identified hazard areas that do not have at least two emergency evacuation routes and identification of evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. One of the amendments to the Safety Element is a policy that requires new developments to be evaluated and conditioned, as necessary, to provide adequate emergency access and evacuation routes, including at least two directions of ingress and egress for all structures or groupings of structures.

Therefore, the Safety Element Update would have no impact related to emergency access, and no mitigation is required.

#### **4.10.8 Compliance Measures and Project Design Features**

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action, does not include any project design features related to transportation.

#### **4.10.9 Mitigation Measures**

No mitigation measures related to transportation are required for the proposed project.

#### **4.10.10 Level of Significance after Mitigation**

There would be no significant unavoidable adverse impacts related to transportation, and no mitigation is required.

#### **4.10.11 Cumulative Impacts**

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and potential future projects within the cumulative impact area for traffic and circulation. Because the proposed project is a citywide policy action, the proposed project itself is cumulative in nature. Therefore, the cumulative area for transportation impacts includes the planning area, which covers the entire 50 square miles within the limits of the City of Long Beach.

The proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. The proposed project would be implemented through community and neighborhood scale actions that will be reviewed at the project level pursuant to CEQA once enough information is available, as well as through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would help achieve the City's GHG emissions targets. There are several measures to support the CAAP Actions and Adaptation Actions that would be implemented with future discretionary projects that would include the construction of new facilities or retrofits to existing buildings, new transit and waste facilities, and changes to the existing streetscape. Although the locations of these future discretionary projects are unknown, if the construction of a nearby project occurs at the same time as the construction of a project that would implement measures to support a CAAP Action or Adaptation Actions, cumulative construction traffic effects could occur. However, these future projects are not a part of the CAAP policy document, which itself does not include any physical development. Further, once future project-specific details and locations are known, the potential for cumulative impacts would be addressed through project-level environmental review and permitting.

Additionally, as stated previously, measures to support the CAAP Actions and Adaptation Actions would be implemented with future discretionary projects that would be evaluated for consistency

with the adopted LUE through Step 1 of the CAAP Checklist. The overall intent of the CAAP as a mitigation measure of the 2019 Certified Program EIR is to allow for the City to meet its GHG reduction targets while accommodating the development anticipated in the adopted LUE. The proposed measures to support the CAAP Actions related to Transportation include the expansion of the bicycle and pedestrian network, increased housing and employment along major transit corridors, and the increased density and mixing of land uses and other measures to reduce VMT. The CAAP promotes a reduction of VMT, which would reduce regional traffic, thus reducing congestion on major arterials and highways. Adaptation Actions that make it more comfortable and safe to walk or take transit, such as through increased tree canopy and bus shelter amenities, will also promote alternative forms of transportation and lessen transportation impacts. Additionally, the proposed CAAP would not generate substantial increases in traffic or a cumulatively considerable contribution to regional traffic as it does not result in physical development. Therefore, implementation of the proposed project is less than cumulatively significant, and no mitigation is required.

## 4.11 TRIBAL CULTURAL RESOURCES

This section of the Draft Subsequent Environmental Impact Report (SEIR) evaluates the potential for the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update (proposed project) to impact tribal cultural resources. The analysis in this section summarizes the results of Native American tribal consultation per the requirements of Senate Bill (SB) 18 and Assembly Bill (AB) 52. The records of consultation are also provided in Appendix F of this SEIR. As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects would also be subject to project-level CEQA as required. Therefore, the analysis in this SEIR focuses on the potential impacts from the measures included in the CAAP Consistency Review Checklist (CAAP Checklist) required for future discretionary projects, as well as the potential programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.11.1 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this SEIR. One comment letter included comments related to tribal cultural resources.

The letter from the California Native American Heritage Commission (NAHC) received on August 23, 2021, recommended Native American consultation with tribes that are culturally affiliated with the project site pursuant to the requirements of AB 52 and SB 18. The results of the Native American consultation process pursuant to these regulations are described in Section 4.11.6 below.

### 4.11.2 Existing Environmental Setting

Tribal cultural resources are defined as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe.” Additionally, a lead agency can, at its discretion and supported by substantial evidence, choose to treat a resource as a tribal resource. AB 52 requires lead agencies to conduct formal consultations with California Native American tribes during the California Environmental Quality Act (CEQA) process to identify tribal cultural resources that may be subject to significant impacts by a proposed project.

The CAAP and Safety Element Update address all land within the City’s jurisdictional limits. Throughout this Draft SEIR, these areas are referred to as the “planning area.”

The planning area encompasses 50 square miles (approximately 33,000 acres) within the limits of the City of Long Beach in the southern region of Los Angeles County. The planning area is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton, Paramount, and Bellflower; and on the east by the Cities of Lakewood, Hawaiian Gardens, Cypress, Los Alamitos, and Seal Beach. Additionally, the City of Signal Hill is centrally located within the planning area and is completely surrounded by development in the City of Long Beach.

The following tribes have been identified by the NAHC as affiliated with the planning area:

- Gabrielino-Tongva Tribe
- Gabrielino/Tongva San Gabriel Band of Mission Indians
- Gabrielino Band of Mission Indians – Kizh Nation

In addition, the following tribes have requested consultation with the City of Long Beach:

- Torres Martinez Desert Cahuilla Indians
- Soboba Band of Luiseno Indians

### 4.11.3 Regulatory Setting

#### 4.11.3.1 Federal Regulations

**Archaeological Resources Protection Act.** The Archaeological Resources Protection Act was enacted in 1979 with the purpose of securing the protection of archaeological resources and sites on public lands and Native American lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals.

**Native American Graves Protection and Repatriation Act.** The Native American Graves Protection and Repatriation Act (NAGPRA) was passed in 1990 with the purpose of outlining a process for museums and federal agencies to return certain Native American cultural items, such as human remains, funerary objects, sacred objects, or objects of cultural patrimony, to lineal descendants, and culturally affiliated Native American tribes. NAGPRA also establishes procedures for the inadvertent discovery or planned excavation of Native American cultural items on federal or tribal lands. While these provisions do not apply to discovery or excavations on private or State lands, the collections portions of NAGPRA may apply to cultural items if they are under the control of an institution that receives federal funding. NAGPRA also makes it a criminal offense to traffic in either Native American human remains without right of possession or cultural items obtained in violation of NAGPRA.

#### 4.11.3.2 State Regulations

**Native American Heritage Commission.** In 1976, the California State Government passed AB 4239, creating the Native American Heritage Commission (NAHC). The NAHC is responsible for identifying and categorizing Native American cultural resources as well as preventing damage to designated sacred sites and associated artifacts and remains. Legislation passed in 1982 authorized the NAHC to identify a Most Likely Descendant (MLD) when Native American remains are found outside the boundaries of a designated cemetery. An MLD has the authority to make recommendations in regards to the treatment and disposition of the discovered remains.

**California Public Resources Code Sections 5097.9–5097.991.** California Public Resources Code (PRC) Sections 5097.9–5097.991 provide protection to Native American historical and cultural resources (including sanctified cemeteries, places of worship, religious sites, or sacred shrines) and sacred sites and gives the NAHC enforcement authority.

Specifically, California PRC Section 5097.98 outlines procedures that must be followed in the event that human remains are discovered. The Los Angeles County Coroner shall make a determination within two working days from the time the person responsible for the excavation, or designee, notifies the County Coroner of the discovery or recognition of the human remains. If the County Coroner identifies the remains to be of Native American origin or has reason to believe that the remains are those of Native American origin, the County Coroner must contact the California NAHC within 24 hours. The NAHC representative will then alert a Native American MLD to conduct an inspection of the site and to determine the ensuing course of treatment and action. Additionally, *State CEQA Guidelines* Section 15064.5 sets forth a procedure if human remains are found on land outside of federal jurisdiction.

**California Health and Safety Code Section 7050.5.** Section 7050.5 of the California Health and Safety Code protects Native American burials, remains, and associated grave artifacts in the event that they are discovered in any location other than a designated cemetery. The Health and Safety Code mandates the immediate stop of excavation in the site as well as any adjacent or overlying area where the remains or associated items are found and provides for the sensitive disposition of those remains. Should remains be discovered, the County Coroner must determine that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or designee, in the manner provided in PRC Section 5097.98.

**The Native American Historic Resource Protection Act.** The Native American Historic Resource Protection Act, or AB 52, defines guidelines for reducing conflicts between Native Americans and development projects and activities. Projects are subject to AB 52 if a notice of preparation for an EIR is filed or a notice of intent to adopt a Negative Declaration or Mitigated Negative Declaration is filed on or after July 1, 2015. “Tribal cultural resources” are protected under CEQA and are defined as a site, feature, place, cultural landscape (must include the size and scope of landscape), sacred place, or object with a cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register of Historical Resources (California Register), or included in a local register of historical resources. At the lead agency’s discretion, a resource can be treated as a tribal cultural resource if a Native American Tribe provides substantial evidence. Additionally, AB 52 allows tribes to engage in consultation with lead agencies and sets guidelines for such consultation.

**Senate Bill 18.** Senate Bill (SB) 18 (Government Code Section 65352.3) requires planning agencies to incorporate protection of California traditional tribal cultural places into land use planning for cities and counties, and to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB 18 also requires planning agencies to notify tribes listed on the NAHC’s SB 18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter timeframe has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts on places, features, and

objects described in PRC Sections 5097.9 and 5097.993 that may be affected by the proposed adoption of or amendment to a general or specific plan.

#### 4.11.3.3 Regional Regulations

There are no regional regulations that are applicable to tribal cultural resources relevant to the proposed project.

#### 4.11.3.4 Local Regulations

**City of Long Beach General Plan.** The City's Historic Preservation Element (2010) addresses protection of the City's heritage and cultural resources. The following goal related to cultural resources is presented in the Historic Preservation Element:

**Policy P.1.1:** The City shall comply with City, State, and Federal historic preservation regulations to ensure adequate protection of the City's cultural, historic, and archaeological resources.

#### 4.11.4 Methodology

In order to identify tribal cultural resources on the project site and analyze potentially significant impacts associated with construction and implementation of the proposed project, the City conducted Native American consultation in accordance with AB 52 and SB 18 requirements.

A list of potential Native American contacts for consultation was requested from the NAHC. In its response to the City, the NAHC recommended contact and consultation with the Gabrielino-Tongva Tribe, the Gabrielino/Tongva San Gabriel Band of Mission Indians, and the Gabrielino Band of Mission Indians – Kizh Nation. The NAHC also provided a Tribal Consultation List that included the following 6 Native American representatives to be contacted:

- Charles Alvarez, Gabrielino-Tongva Tribe
- Linda Candelaria, Gabrielino-Tongva Tribe
- Robert Dorame, Gabrielino-Tongva Indians of California Tribal Council
- Sandonne Goad, Gabrielino/Tongva Nation
- Anthony Morales, Gabrielino/Tongva San Gabriel Band of Mission Indians
- Andrew Salas, Gabrielino Band of Mission Indians – Kizh Nation

In addition, two tribes have sent letters to the City of Long Beach requesting consultation:

- Michael Mirelez, Torres Martinez Desert Cahuilla Indians
- Joseph Ontiveros, Soboba Band of Luiseno Indians

The City sent letters for the purposes of AB 52 and SB 18 consultation to individuals on the City's AB 52 list, and those individuals provided on the NAHC list, as described above, on July 14, 2021, via certified mail to confirm receipt.

No responses or requests for consultation have been received to date. A record of Native American consultation efforts is provided in Appendix F of this SEIR.

#### 4.11.5 Thresholds of Significance

The thresholds for tribal cultural resources impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed project may be deemed to have a significant impact with respect to tribal cultural resources if it would:

**Threshold 4.11.1:** Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

**Threshold 4.11.1(i):** Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k).

**Threshold 4.11.1(ii):** A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

#### 4.11.6 Project Impacts

**Threshold 4.11.1(i):** Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?

Or

**Threshold 4.11.1(ii):** Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code

**Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

**CAAP: Less Than Significant Impact.** The proposed project includes the proposed CAAP, which was included as a mitigation measure in the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development and reduce the City's greenhouse gas (GHG) emissions while also minimizing the impacts of climate change on the community. The proposed project is considered a policy/planning action and does not constitute approval for any physical improvements or development. Implementation of certain CAAP Actions by the City or other agencies, such as performance of municipal energy and water audits (BE-7), may not be subject to discretionary approval and project-level CEQA review. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed project also would be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA streamlining for GHG analysis. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would help achieve the City's GHG emissions targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a project does not include specific Tier 1 measures, equivalent measures for GHG emission reductions backed by substantial evidence must be provided for the project to utilize the Checklist in lieu of a project-level GHG analysis.

Tier 1 measures are required because they were quantified as part of the City's GHG reduction pathway for new development. Tier 1 measures or equivalent strategies would also be required for other improvements to existing development to demonstrate consistency with the goals and policies of the CAAP, and as required for compliance with regulatory requirements. Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. There are no Tier 2 measures identified for the Building and Energy sector. Implementation of these measures would support the CAAP Actions for Building and Energy by requiring increased access to and incentives for clean electricity (BE-1 and BE-5) and the increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures. Other Building and Energy CAAP Actions supported by the measures listed on the CAAP Checklist would increase energy efficiency of existing facilities and electrify new residential and commercial buildings. Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 2 measures for the Transportation sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service (T-1), providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5), complying with City TDM requirements (T-7), and

complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to SB 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Other Tier 2 measures to support the CAAP Actions for Transportation listed on the CAAP Checklist are designed to focus increased housing and employment density along major transit corridors, increase rapid bus service, establish bus-only lanes, and expand electric-vehicle charging infrastructure to further reduce emissions. Tier 1 measures required for the Waste sector include the recycling of appropriate materials and organic waste diversion. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion. Implementation of the Tier 1 measures would support CAAP Actions for Waste by requiring recycling compliance (W-1) and organic waste diversion (W-2). Such actions would not require any construction activities, but rather are programs that would be implemented with existing facilities. Any new construction required to facilitate such actions would be subject to project-level CEQA review. Other CAAP Actions for Waste supported by the measures listed on the CAAP Checklist would expand communitywide participation in organic waste collection and diversion.

As described above, there are several measures to support the CAAP Actions that would be implemented with future discretionary projects that would involve retrofits to existing buildings. In addition, other future discretionary projects that would implement measures to support the CAAP Actions may be sited in locations that would result in potential impacts to tribal cultural resources. All future discretionary projects that utilize the CAAP Checklist to achieve the City's GHG emissions targets would be reviewed as required by CEQA and would also be required to undergo the Site Plan Review process. During the project-specific CEQA analysis, a review of the California Register would be conducted as well as review of any the City's local registers of historical resources, as provided in the City's Historic Preservation Element. In addition, all future discretionary projects would be subject to the requirements of AB 52 for Native American consultation; SB 18 is also applicable if the project includes a General Plan Amendment or a new Specific Plan or Amendment. Through project-specific consultation, potential impacts to tribal cultural resources determined to be significant by the lead agency would be identified and addressed accordingly. Future discretionary projects that implement measures to support the CAAP Actions could result in potential impacts to tribal cultural resources listed on the California Register or local register or determined by the lead agency to be significant under Public Resources Code Section 5024.1. However, as described in the consultation letters distributed by the City for the proposed project, the City typically requires project-level mitigation measures as part of the Mitigation Monitoring and Reporting Program for specific development projects that address potential impacts to tribal cultural resources through retention of qualified archaeologists, worker training programs, Native American monitoring, development of Treatment Plans for unanticipated discovery of resources, and treatment of human remains pursuant to State law. Future discretionary projects that implement the CAAP Actions would be reviewed on a project-by-project basis, and mitigation would be identified during project-level review as appropriate. It should be noted that the construction of these future discretionary projects does not constitute the CAAP project; they are the projects that would be incorporating CAAP Actions, which in and of themselves do not involve construction or operation of actions that would impact tribal cultural resources.

As described above, in addition to the measures to support the CAAP Actions related to Building and Energy, Transportation, and Waste that would apply to future development to achieve the GHG emissions target of the CAAP, the proposed CAAP also identifies Adaptation Actions related to extreme heat, air quality, drought, and sea level rise/flooding. While the Adaptation Actions would not be required to meet the City's GHG reduction targets, they are listed in the CAAP Checklist for future discretionary projects to incorporate, as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP. Adaptation Actions are also anticipated to be undertaken at a neighborhood or citywide scale to lessen the impacts of climate change on critical infrastructure and public facilities. The proposed CAAP provides an assessment of climate change vulnerabilities and recommends a suite of potential adaptation strategies for each climate change impact that would be accomplished through implementation of the Adaptation Actions. There is not sufficient information at this time to analyze potential future physical improvements that may be needed to implement Adaptation Actions in the CAAP as specific projects and locations are unknown. Additional analysis will be needed to develop specific adaptation approaches and projects at specific locations, and future discretionary improvements would be analyzed on a project level pursuant to CEQA, and project-specific tribal consultation pursuant to the requirements of AB 52 and/or SB 18 would be conducted. Therefore, potential impacts of the Adaptation Actions at the program level would be less than significant, and no mitigation is required.

In addition it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to tribal cultural resources. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or entitle any physical development that would result in impacts to tribal cultural resources. Therefore, the Safety Element Update would have no impact related to tribal cultural resources, listed on the CRHC or local registers, or determined by the lead agency to be significant, and no mitigation is required.

#### **4.11.7 Level of Significance Prior to Mitigation**

The proposed project would result in less than significant impacts related to tribal cultural resources, and no mitigation is required.

#### **4.11.8 Compliance Measures and Project Design Features**

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action does not include any project design features related to tribal cultural resources.

#### **4.11.9 Mitigation Measures**

The proposed project would not result in any significant adverse impacts related to tribal cultural resources, and no mitigation would be required.

#### **4.11.10 Level of Significance after Mitigation**

There would be no significant unavoidable adverse impacts of the proposed project related to tribal cultural resources. No mitigation would be required.

#### **4.11.11 Cumulative Impacts**

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects. Therefore, the cumulative area for tribal cultural resources impacts includes the planning area, which covers the entire 50 square miles within the limits of the City of Long Beach and any tribal cultural resources within the planning area.

Cumulative growth within the City could result in potential impacts to tribal cultural resources at specific development sites throughout the City. As described previously, the proposed project does not include physical improvements or development. The proposed project would be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would help achieve the City's GHG emissions targets. There are several measures to support the CAAP Actions and Adaptation Actions that would be implemented with future discretionary projects that would include the construction of new facilities or retrofits to existing buildings, new transit and waste facilities, and changes to the existing streetscape. Although the locations of these future discretionary projects are unknown, if multiple future discretionary projects would result in impacts to tribal cultural resources, cumulative impacts to tribal cultural resources could occur. Where there is the potential for these cumulative impacts, they would be addressed through project-level environmental review and permitting. Construction activities associated with future discretionary projects that utilize the CAAP Checklist would be subject to compliance with State law as well as the City's standard requirements that would be included as project-specific mitigation measures and may include retention of qualified archaeologists, worker training programs, Native American monitoring, and development of Treatment Plans for unanticipated discovery of resources to ensure that potential impacts to tribal cultural resources are reduced or avoided.

Additionally, as stated previously, the measures to support the CAAP Actions and Adaptation Actions would be implemented with future discretionary projects that would be evaluated for consistency with the adopted Land Use Element (LUE). The overall intent of the CAAP as a mitigation measure of the 2019 Certified Program EIR is to allow for the City to meet its GHG reduction targets while accommodating the development anticipated in the adopted LUE based on growth projections. Potential future discretionary projects that would implement measures to support the CAAP Actions and Adaptation Actions would result in development within the City already anticipated by the adopted LUE. In addition, Adaptation Actions would be implemented to lessen the impacts of

climate change on both development and natural resources in the City, including tribal cultural resources. The project would also bring the General Plan into compliance with a number of State laws relating to climate change and resiliency through the proposed Safety Element Update, which as a planning/policy action would not facilitate or entitle any physical development that would result in impacts to tribal cultural resources. Therefore, implementation of the proposed project is less than cumulatively significant, and no mitigation is required.

## 4.12 UTILITIES AND SERVICE SYSTEMS

This section describes the utilities and service systems currently serving the planning area and evaluates the potential impacts of the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update (proposed project) on utilities and service systems. This section is based on multiple data sources, including the currently adopted General Plan Safety Element (1975), and the proposed Safety Element Update, as well as planning documents and websites of potentially affected utility and service providers. Specific references are identified within the subsection for each respective issue. This section addresses the following utility and service system providers (service providers are noted in parenthesis):

- Solid Waste (Los Angeles County Sanitation Districts [LACSD])
- Wastewater (LACSD)
- Water (Long Beach Water Department [LBWD])
- Electricity (Southern California Edison [SCE])
- Natural Gas (Southern California Gas Company [SoCalGas])
- Telecommunications (Cable TV and Telephone Service Providers)

As described in Chapter 3.0, Project Description, the proposed project is the adoption of the proposed CAAP and Safety Element update and is considered a policy/planning action. The proposed project does not include physical improvements or development, and impacts from implementation of all future CAAP Actions at this time would be speculative. Any future discretionary projects to implement CAAP Actions and Adaptation would also be subject to project-level CEQA as required. Therefore, the analysis in this Subsequent Environmental Impact Report (SEIR) focuses on the potential impacts from the measures included in the CAAP Consistency Review Checklist (CAAP Checklist) required for future discretionary projects, as well as the potential programmatic level impacts of the CAAP Actions, Adaptation Actions, and the Safety Element Update.

### 4.12.1 Scoping Process

The City of Long Beach (City) received five comment letters during the public review period of the Notice of Preparation (NOP). For copies of the NOP comment letters, refer to Appendix A of this SEIR. One comment letter included comments related to utilities and service systems.

The letter from the Los Angeles County Sanitation Districts (LACSD) received on September 22, 2021, provided information on the LACSD's wastewater facilities and stated that the available capacity of its treatment facilities will be limited to levels associated with the approved growth identified by the Southern California Association of Governments (SCAG) Regional Growth Forecasts.

### 4.12.2 Existing Environmental Setting

#### 4.12.2.1 Solid Waste

Solid waste collection services are provided by the City's Environmental Services Bureau; however, the City is also a member of the Los Angeles County Sanitation District (LACSD). Based on available disposal reporting data from the California Department of Resources Recycling and Recovery (CalRecycle; formerly known as the California Integrated Waste Management Board [CIWMB])

website, it was estimated that the annual tonnage of solid waste generated by all sources in the City was approximately 318,891 tons per year (or 637,782,000 pounds per year) in 2019.<sup>1</sup> A majority of the City's solid waste is sent to the Southeast Resource Recovery Facility (SERRF). The SERRF is a refuse-to-energy transformation facility that reduces the volume of solid waste it receives by approximately 80 percent using mass burn technology. The SERRF receives the greatest tonnage of solid waste of all disposal sites located within the City. The Solid Waste Facility Permit for the SERRF identifies that the design capacity of this facility is 2,240 tons per day (4,480,000 pounds).<sup>2</sup> The SERRF currently processes approximately 1,290 tons per day (2,580,000 pounds).<sup>3</sup>

Solid waste that is generated in the City of Long Beach but is not sent to the SERRF is taken to landfills in Orange, San Bernardino, and Riverside Counties.<sup>4</sup> Alternative disposal options include two ramped-up Material Recovery Facilities (MRF) run by LACSD: the Downey Area Recycling and Transfer Facility (DART) in Downey, and the Puente Hills MRF, situated at the base of the Puente Hills Landfill. Through the available MRFs run by LACSD, the use of active landfills in Orange, San Bernardino, and Riverside Counties, and plans for future implementation of the Waste-by-Rail system, Los Angeles County is currently able to meet existing and projected landfill needs.

#### 4.12.2.2 Electricity

The City receives its electricity from Southern California Edison (SCE). According to the California Energy Commission (CEC), the electricity consumption in the SCE service area for 2019 was 104,125 gigawatt hours (GWh).<sup>5</sup> The CEC adopted the Demand Forecast 2020 in January 2021. Forecasted electricity consumption within the SCE service area is estimated to be 115,990 GWh by 2025 and 123,743 GWh by 2030 (the furthest horizon year for which data are available). In addition, the CEC estimates that net peak demand and net energy load within SCE's service territory will grow annually by 2.45 percent until 2030.

#### 4.12.2.3 Natural Gas

The City of Long Beach Municipal Energy Resources (ER) Department purchases natural gas from the Southern California Gas Company (SoCalGas) and provides natural gas services to residents and businesses of Long Beach and Signal Hill and portions of surrounding communities, including the

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<sup>1</sup> California Department of Resources Recycling and Recovery (CalRecycle). California Solid Waste Statistics. Website: <https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Origin/CountywideDetail> (accessed September 9, 2021).

<sup>2</sup> CalRecycle. Solid Waste Information System (SWIS) Facility Detail. Southeast Resource Recovery Facility. Solid Waste Facility Permit, Permit No. 19-AK-0083. Website: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3070?siteID=1423> (accessed September 9, 2021).

<sup>3</sup> City of Long Beach. 2021. Energy Resources SERRF Operations. Website: <https://www.longbeach.gov/energyresources/about-us/serff/operations/> (accessed September 9, 2021).

<sup>4</sup> Los Angeles Daily News. *Puente Hills Landfill Will Close Forever Thursday*. Website: <https://www.sgvtribune.com/2013/10/30/puente-hills-landfill-will-close-forever-thursday/> (accessed September 9, 2021).

<sup>5</sup> California Energy Commission (CEC). Database. 2021. California Energy Demand Forecast Update 2020-2030. Website: <https://www.energy.ca.gov/filebrowser/download/2853> (accessed September 9, 2021).

Cities of Bellflower, Compton, Lakewood, Los Alamitos, Paramount, and Seal Beach. In 2020, the California Gas and Electric Utilities published the *2020 California Gas Report*. In addition to providing a summary of the existing and historic natural gas demands, the *2020 California Gas Report* provides projected annual gas supplies for future years through year 2035. According to the *2020 California Gas Report*, the natural gas demand for the City of Long Beach is expected to decline from 9 billion cubic feet per year in 2019 to 8 billion cubic feet per year in 2035 (the furthest horizon year for which data are available).<sup>6</sup>

#### 4.12.2.4 Wastewater

The Long Beach Water Department (LBWD) is responsible for operating and maintaining approximately 765 miles of sanitary sewer lines in the City. Through these sanitary sewer lines, the LBWD delivers over 40 million gallons per day (mgd) of wastewater to LACSD facilities located in the region.<sup>7</sup> The majority of the wastewater generated in the City is delivered to the Joint Water Pollution Control Plant (JWPCP) of LACSD (located at 24501 S. Figueroa Street in the City of Carson) with the remaining portion delivered to the Long Beach Water Reclamation Plant (WRP) of LACSD (located at 7400 East Willow Street in Long Beach).

The JWPCP provides both primary and secondary treatment of wastewater and serves over 4.8 million residents. Currently, the JWPCP treats approximately 260 mgd and has a total permitted design capacity of 400 mgd.<sup>8</sup> The Long Beach WRP provides primary, secondary, and tertiary treatment and serves a population of approximately 250,000. Approximately 6 mgd of recycled water produced at the Long Beach WRP are used at over 60 sites. The Long Beach WRP treats an average of approximately 12 mgd and has a total permitted capacity of 25 mgd.<sup>9</sup>

#### 4.12.2.5 Water Service

The LBWD owns, operates, and maintains 27 active groundwater wells and 916 miles of water mains. The LBWD's entire infrastructure is used to provide water service to a service population of approximately 490,000 and 90,000 active customer accounts within an approximate 50-square-mile service area in the City.<sup>10</sup> The LBWD receives approximately 60 percent of its domestic water supply from existing groundwater supplies within the Central Basin<sup>11</sup> and approximately 40 percent from

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<sup>6</sup> California Gas and Electric Utilities. *2020 California Gas Report*. Website: [https://www.socalgas.com/sites/default/files/2020-10/2020\\_California\\_Gas\\_Report\\_Joint\\_UTILITY\\_Biennial\\_Comprehensive\\_Filing.pdf](https://www.socalgas.com/sites/default/files/2020-10/2020_California_Gas_Report_Joint_UTILITY_Biennial_Comprehensive_Filing.pdf) (accessed September 9, 2021).

<sup>7</sup> Long Beach Water Department (LBWD). 2021. Sewer. Website: <https://www.lbwater.org/customer-services/sewer/> (accessed September 9, 2021)

<sup>8</sup> Los Angeles County Sanitation Districts (LACSD). 2021. Written correspondence dated September 22, 2021

<sup>9</sup> Ibid.

<sup>10</sup> LBWD. 2021. Budget Summary Fiscal Year 2021, Website: <https://lbwater.org/wp-content/uploads/2020/09/FY-21-Water-Dept-Budget-Summary.pdf> (accessed September 9, 2021).

<sup>11</sup> The Central Subbasin occupies a large portion of the southeastern part of the Coastal Plain of Los Angeles Groundwater Basin and is commonly referred to as the "Central Basin."

imported water purchased from the Metropolitan Water District of Southern California (MWD).<sup>12</sup> The major sources of water for the LBWD include imported water purchased from the MWD, groundwater pumped and treated by the LBWD, and recycled water produced at the Long Beach WRP.

#### 4.12.2.6 Storm Drain

The City currently has an intricate storm drainage system, which consists of streets and gutters, catch basins, and underground pipes, ditches, streams and creeks, pump stations, and channels/ rivers. This system carries stormwater and runoff away from impermeable surfaces in the City to designated drainage areas, including the Los Angeles and San Gabriel Rivers. In order to ensure proper function of the City's storm drain system, the City performs bi-annual maintenance work on the system and emergency repair work on an as-needed basis.

#### 4.12.2.7 Telecommunications

While there are a number of cable and telephone service providers available to residents in the planning area, the primary service providers in the planning area are Spectrum, AT&T, and Frontier. Together, these three service providers hold a franchise issued by the State's Public Utilities Commission to provide services to residents in the City.<sup>13</sup> In addition, the City owns approximately 60 miles of fiber optic cable in the City.

### 4.12.3 Regulatory Setting

#### 4.12.3.1 Federal Regulations

**Federal Water Pollution Control Act.** The Federal Water Pollution Control Act requires discharges (from point and non-point sources) into navigable water to meet stringent National Pollutant Discharge Elimination System (NPDES) permit standards. The U.S. Environmental Protection Agency (EPA) has published regulations establishing requirements for application of stormwater permits for specified categories of industries, municipalities, and certain construction activities. The regulations require that discharges of stormwater from construction activity of 1.0 acre or more must be regulated and covered by an NPDES permit. When a construction area exceeds 1.0 acre in size, the applicant must develop and implement a Storm Water Pollution Prevention Plan (SWPPP) to control non-point pollution.

**Federal Aviation Administration (FAA) Notification.** Notification to the FAA is required for the construction of any tower or the alteration of an antenna structure that is registered with the Commission's Antenna Structure Registration (ASR) system. Generally, towers that meet certain height and location requirements (e.g., are more than 200 ft above ground level and/or are located within proximity of an airport) require notice with the FAA and ASR system and must register with

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<sup>12</sup> LBWD. 2019. Water Resources Plan, Website: <https://lbwater.org/wp-content/uploads/2020/04/LBWD-WRP-1.pdf> (accessed September 9, 2021).

<sup>13</sup> City of Long Beach. Cable Television and Telephone Service. Website: <https://www.longbeach.gov/ti/telecommunications/> (accessed September 9, 2021).

the Federal Communications Commission. A final determination of “no hazard” is required from the FAA prior to any construction or alteration of facilities.

**Federal Communications Commission (FCC) Antenna Structure Registration.** Applicants proposing to construct or alter antenna structures must register such facilities with the FCC in compliance with Part 17 of the FCC’s Rules. An ASR registration must not occur until an applicant has first secured a “no hazard” determination from the FAA. If the FCC accepts the application, a registration is issued, which typically includes the FAA’s “no hazard” marking and/or lighting specifications and which assigns the antenna an ASR number. Once an antenna is registered, the owner is responsible for compliance with applicable FAA and FCC regulations. No changes to the specifications in the ASR system are permitted without prior authorization from both the FAA and FCC. Once the antenna structure is constructed or altered, the owner must file a Notice of Completion of Construction or Alteration with the FAA and a form with the FCC notifying both agencies that the construction has been completed.

#### 4.12.3.2 State Regulations

**Assembly Bill 939: Solid Waste Reduction.** The California Integrated Waste Management (CIWM) Act of 1989 (Assembly Bill [AB] 939) was enacted as a result of a national crisis in landfill capacity, as well as a broad acceptance of the hierarchy (reduce, reuse, recycle, environmentally sound landfiling, and transformation) as the desired approach to solid waste management. AB 939 mandated local jurisdictions to meet waste diversion goals of 25 percent by 1995 and 50 percent by 2000, and established an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. Other elements included encouraging resource conservation and considering the effects of waste management operations. The diversion goals and program requirements are implemented through a disposal-based reporting system by local jurisdictions under CIWMB regulatory oversight. Since the adoption of AB 939, landfill capacity has increased. Regional capacity problems still exist, but capacity is no longer considered the statewide crisis it once was. AB 939 has achieved substantial progress in waste diversion, program implementation, solid waste planning, and protection of public health and safety and the environment from the operation of landfills and solid waste facilities.<sup>14</sup> The City offers recycling programs for both commercial and residential uses.

**California Integrated Waste Management Act of 1989.** The CIWM Act of 1989 (California Public Resources Code [PRC] Division 30), enacted through AB 939 and modified by subsequent legislation, required all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of waste by 2000 (PRC Section 41780). The State determines compliance with this mandate to divert 50 percent of generated waste (which includes both disposed and diverted waste) through a complex formula. This formula requires cities and counties to conduct empirical studies to establish a base-year waste generation rate against which future diversion is measured. The actual determination of the diversion rate in subsequent years is arrived at through deduction, not direct

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<sup>14</sup> CalRecycle. History of California Solid Waste Law, 1985-1989. Website: <https://www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989> (accessed September 9, 2021).

measurement; instead of counting the amount of material recycled and composted, the city or county tracks the amount of material disposed at landfills, then subtracts the disposed amount from the base-year amount. The difference is assumed to be diverted (PRC 41780.2).

**Assembly Bill 75.** AB 75, passed in 1999, and the State Agency Model Integrated Waste Management Act (Chapter 764, Statutes of 1999, Strom-Martin) took effect on January 1, 2000. This bill added new provisions to the PRC, mandating that State agencies develop and implement an Integrated Waste Management Plan (IWMP) that outlines the steps to be taken to achieve the required waste diversion goals.

Current statutes require all State agencies and large facilities to divert at least 50 percent of their solid waste from disposal facilities on and after January 1, 2004. The law also requires that each State agency and large facility submit an annual report to CalRecycle summarizing its yearly progress in implementing waste diversion programs; it also mandated that community service districts providing solid waste services report disposal and diversion information to the city, county, or regional agency in whose jurisdiction they are located. In addition to the waste diversion goals, all State agencies are required to buy recycled materials from 12 different categories ranging from paper and plastic to paint, solvents, and lubricating oils.

**Senate Bill 1016.** The Per Capita Disposal Measurement System Act (Senate Bill [SB] 1016) changed the way State agencies and local governments measure their progress toward meeting the statutory waste diversion mandates. State agencies and large State facilities now use per capita disposal as an indicator of their compliance with the 50 percent waste diversion requirement. Compliance is also determined by diversion program implementation.

**Senate Bill 1374.** SB 1374 requires that the annual report submitted to CalRecycle include a summary of the progress made in the diversion of construction and demolition waste materials. In addition, SB 1374 requires CalRecycle to adopt a model ordinance suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition waste materials from landfills by March 1, 2004. Local jurisdictions are not required to adopt their own construction and demolition ordinances, nor are they required to adopt CalRecycle's model by default. However, adoption of such an ordinance may be considered by CalRecycle when determining whether to impose a fine on a jurisdiction that has failed to implement its Source Reduction and Recycling Element (SRRE).

**Assembly Bill 341.** AB 341, enacted in 2011, changed the due date of the State agency waste management annual report to May 1 beginning in 2012. The bill makes a legislative declaration that is the policy goal of the State that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020.

**Water Conservation in Landscaping Act.** To ensure adequate supplies are available for future uses, and to promote the conservation and efficient use of water, local agencies are required to adopt a water-efficient landscape ordinance. When such an ordinance has not been adopted, a finding as to why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary must be adopted. In the absence of such, an ordinance drafted by the State of California applies within the affected jurisdiction. The City of Long Beach implements water-efficient

landscaping standards set forth by the State Model Water Efficient Landscape Ordinance (MWELO), (Chapter 21.42.035 of the City's Municipal Code), which establishes water conservation requirements for all projects that require a Site Plan Review; new residential, commercial, industrial, institutional and public agency landscape projects with an aggregate landscape area equal to or greater than 500 square feet (sf) requiring a landscape plumbing permit; rehabilitated residential, commercial, industrial, institutional, and public agency landscape projects with an aggregate landscape area equal to or greater than 2,000 sf requiring a landscape plumbing permit; cemeteries; existing landscapes; and public facilities and public rights-of-way.<sup>15</sup>

**Water Recycling in Landscaping Act.** The Water Recycling in Landscaping Act requires that a water producer capable of providing recycled water that meets certain conditions notify local agencies eligible to receive the recycled water. It also requires that necessary infrastructure be provided to support the delivery of recycled water.

**State Water Code Sections 13550–13556.** These sections of the State Water Code specify that local, regional, or State agencies shall not use water from any source for non-potable uses if suitable recycled water is available as provided in Section 13550 of the State Water Code.

**State Water Resources Control Board.** Operation of the JWPCP and the Long Beach WRP are subject to regulations set forth by the California Department of Health Services (DHS) and the State Water Resources Control Board (SWRCB). NPDES permits are required for operators of municipal separate storm sewer systems (MS4s), construction projects, and industrial facilities who discharge to surface waters within the City.

**Urban Water Management Planning Act.** The Urban Water Management Planning Act (UWMPA) of 1983 requires preparation of a strategy that plans for water supply and assesses the reliability of water sources over a 20-year period in 5-year increments; identifies and quantifies adequate water supplies for existing and future demands under normal, single-dry, and multiple-dry years; and implements conservation controls to ensure the efficient use of urban water supplies. Requirements set forth in the UWMPA apply to every urban water supplier with 3,000 customers or more or that provides over 3,000 af/yr of water to ensure reliability in water service in order to meet the needs of customers during normal, dry, and multiple-dry years.

**Governor's Drought Declaration.** On January 17, 2014, Governor Brown proclaimed a State of Emergency asking Californians to reduce water use by 20 percent and directing State officials to take all necessary actions to make water available. Additional key measures in the proclamation include the following: directing water suppliers to implement water shortage contingency plans, ordering the SWRCB to consider petitions for consolidation of places of use for the State Water Project and Central Valley Project in an effort to streamline water transfers and exchanges between water users, directing the DWR and the SWRCB to accelerate funding for projects that would have broken ground

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<sup>15</sup> City of Long Beach Municipal Code, Section 21.42.03. City of Long Beach, codified through Ordinance No. ORD-18-0021, enacted August 14, 2018 (Supp. No. 21, Update 2).

in 2014 and would enhance water supplies, ordering the SWRCB to notify water rights holders across the State that they may be directed to cease or reduce water diversions based on water shortages, and requiring the SWRCB to consider modifying requirements for releases of water from reservoirs or diversion limitations to conserve water in reservoirs and improve water quality.

Following the Governor’s drought declaration, the DWR announced on January 31, 2014, that if current dry conditions persist, customers would receive no deliveries from the State Water Project. Deliveries to agricultural districts with long-standing water districts were determined to be at a risk for a potential 50 percent reduction.

On April 1, 2014, the Governor issued Executive Order (EO) B-29-15, which ordered the SWRCB to impose restrictions to achieve a 25 percent reduction in potable urban water usage through the end of February 2016, directed the DWR to lead a statewide initiative to replace 50 million sf of lawns and turf with drought-tolerant landscapes, and directed the California Energy Commission (CEC) to implement a statewide rebate program for the replacement of inefficient household devices.

On April 25, 2014, the Governor issued an executive order to accelerate actions intended to reduce harmful effects of the drought and called on Californians to redouble their efforts to conserve water. On July 15, 2014, the SWRCB approved an emergency regulation requiring water conservation for outdoor water use. Subsequently, on December 22, 2014, Governor Brown issued EO B-28-14, which extended the operation of the provisions outlined in the April 2014 Executive Order.

The LBWD has been found compliant with EO B-28-14 and the SWRCB rules, exceeding the required reduction in water usage.

Following unprecedented water savings and plentiful winter rain and snow, Governor Brown lifted the drought emergency declaration in April 2017 via EO B-40-17, which lifted the drought emergency in all counties except for Fresno, Kings, Tulare, and Tuolumne, but maintained water reporting requirements and prohibitions on wasteful practices (e.g., watering during or after rainfall, hosing off sidewalks, and irrigating ornamental turf on public street medians).

**Senate Bill 610.** Enacted in 2001 (effective January 1, 2002), SB 610 Water Supply Assessment (WSA) added Section 21151.9 to the California PRC requiring that any proposed “project,” as defined in Section 10912 of the State Water Code, comply with Water Code Section 10910, et seq. Commonly referred to as a “SB 610 Water Supply Assessment,” Water Code Section 10910 et seq. outlines the necessary information and analysis that must be included in an Environmental Impact Report (EIR) to ensure that a proposed land development has sufficient water supply to meet existing and planned water demands over a 20-year projection.

The standard for the certainty and reliability of water supplies sufficient to meet the demands of the proposed development is more exacting than that required for the UWMP. Ultimately, because the SB 610 WSA is a source document for an EIR prepared for a proposed project pursuant to the California Environmental Quality Act (CEQA), it must provide substantial evidence showing that sufficient water will be available to meet water demands for the water purveyor’s existing and planned land uses over a 20-year planning horizon.

The initial question in conducting an SB 610 WSA is whether there is a “project” that is subject to the SB 610 WSA process. According to the SB 610 WSA requirements, a “project” is defined as any of the following:

- Residential development of more than 500 dwelling units;
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 sf of floor space;
- Commercial office building employing more than 1,000 persons or having more than 250,000 sf of floor space;
- Hotel or motel, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 sf of floor area;
- Mixed-use project that includes one or more of the projects specified above; or
- Project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project.

If a public water system has fewer than 5,000 service connections, then “project” means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system’s existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system’s existing service connections.

The proposed project is a planning/policy action and does not constitute a “project” under SB 610 requirements. As such, the project does not require preparation of a WSA. However, future projects facilitated by approval of the proposed CAAP would be subject to the SB 610 WSA requirements and may be required to prepare WSAs (refer to Section 4.12.7, Project Impacts, later in this section for further discussion).

**Senate Bill 7.** SB X7-7 was enacted in 2009, authorizing the DWR to prepare a plan implementing urban water conservation requirements. SB X7-7, otherwise referred to as the 20x2020 Water Conservation Plan, requires urban water suppliers to adopt a water conservation target of 20 percent reduction in urban capita water use by year 2020 compared to a 2005 baseline. SB X7-7 also requires agricultural water providers to prepare water management plans, measure water deliveries, and implement water efficiency measures.

**Assembly Bill 2788.** Under AB 2788, a wireless telecommunications collocation facility (i.e., the placement or installation of wireless facilities, including antennas and related equipment, or

adjacent to a wireless collocation facility) is subject to a city or county discretionary permit and is obligated to comply with specific criteria. A collocation facility is a permitted use not subject to a discretionary permit. AB 2788 would permit the use of a small cell without a discretionary permit or aesthetic review in all zoning districts, and would instead only be subject to a building or administrative permit, as applicable. In addition, AB 2788 requires that a city or county cannot require an escrow deposit for the removal of a wireless telecommunications facility or any component thereof, unreasonably limit the duration of any permit for a wireless telecommunications facility, or require that all wireless telecommunications facilities be limited to sites owned by parties within the jurisdiction of the city or county. Moreover AB 2788 establishes specific timeframes by which a city or county must review a permit and/or renew a permit for wireless telecommunications facilities.

**California Public Utilities Commission Decision 18-04-007.** On April 27, 2018, the California Public Utilities Commission (CPUC) issued Decision 18-04-007, which amended the Right-of-Way rules to provide competitive local exchange carriers with expanded access to public utility infrastructure for the purpose of installing antennas and wireless telecommunications equipment. Specifically, the CPUC mandated that the use of rights-of-way areas shall be limited to those necessary or useful for the provision of telecommunication services, thereby requiring a nexus between the installation and the provision of a telecommunication service.

#### 4.12.3.3 Regional Regulations

**Metropolitan Water District 2015 Regional Urban Water Management Plan.** The MWD's 2015 Regional UWMP lists and describes the various uses, demand, supplies, target reductions, and compliance measures for 26 member agencies, including the City of Long Beach. These include 14 cities, 11 municipal water districts, and one county water authority serving approximately 18.7 million people in Southern California. The 2015 Regional UWMP found that under the current supply demands for a multiple-dry-year scenario (i.e., drought conditions), the MWD would have sufficient supply to meet the projected growing demand for water from 2020 to 2040 while still meeting statewide reduction targets of 20 percent of 2009 levels by 2020. The MWD is currently working to develop programs to increase its water supply and create a large surplus during multiple-dry-year scenarios to ensure that water demands will still be addressed during emergency drought situations. With demands projected to be around 2.3 million acre-feet (af) in 2040 during multiple-dry-year scenarios, the MWD would have a surplus of 2,000 af with current capabilities and 288,000 af with the implementation of the programs under development.

#### 4.12.3.4 Local Regulations

**City of Long Beach National Pollutant Discharge Elimination System Permit.** The City is a Permittee of the Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges from the City of Long Beach (Order No. R4-2014-0024, National Pollutant Discharge Elimination System (NPDES) No. CAS004003, as amended by Order No. R4-2014-0024-A01) (City of Long Beach MS4 Permit). The City of Long Beach MS4 Permit regulates discharges into the MS4 system in the City that are in the jurisdiction of the Los Angeles Regional Water Quality Control Board (RWQCB). The City of Long Beach MS4 Permit requires certain projects to prepare Low Impact Development (LID) Plans, or the equivalent of, and implement post-construction best management practices (BMPs).

**City of Long Beach Municipal Code.** According to Section 18.67.070 (Compliance with the WMP) of the City’s Municipal Code, any demolition project of “any valuation” shall submit documentation that it has met diversion requirements. Specifically, the City requires 60 percent of the waste tonnage of construction or demolition debris to be recycled, reused, or diverted from landfills or disposal sites.

**Long Beach Water Department, Urban Water Management Plan.** In accordance with the Urban Water Management Plan Act, the LBWD has prepared its Long Beach Water 2015 Urban Water Management Plan (2015 UWMP) (adopted in 2016), which anticipates that the LBWD’s water supply will increase by 7 percent from 2015 to 2040 to meet projected water demands. Projected sources of water from 2015 to 2040 are anticipated to include a combination of groundwater obtained via annual extraction rights, imported water from MWD, and recycled water.

**Long Beach Water Department, Board Resolution WD-1353.** On June 2, 2016, the Long Beach Board of Water Commissioners declared a Stage 1 Water Supply Shortage. The adoption of the Stage 1 Supply Shortage means that one additional outdoor watering day is permitted during the hot and dry summer months compared to the previous Stage 2 Supply Shortage designation. Landscape watering in the City is allowed on Tuesdays, Thursdays, and Saturdays from April 1 through September 30. From October 1 through March 31, watering is allowed on Tuesdays and Saturdays due to cooler temperatures and increased rainfall.

**City of Long Beach General Plan Conservation Element.** Public utilities goals are included in the Conservation Element (adopted in 1973) of the City’s General Plan. The following goals are applicable to the proposed project:

***Water Resource Management Goal 1:*** To assure adequate quantity and quality of water to meet the present and future domestic, agricultural, and industrial needs of the City.

***Water Resource Management Goal 5:*** To maintain, upgrade, and improve water systems and facilities serving Long Beach.

**City of Long Beach General Plan Mobility Element.** In October 2013, the City approved the General Plan Mobility Element. The Mobility Element seeks to guide development and improvements to the existing circulation system. Together with the existing circulation system, the Mobility Element considers the mobility of critical resources (e.g., water, energy, and communications). The following goals and policies related to utilities and services systems in the City’s Mobility Element are applicable to the proposed project.

**Strategy No. 19:** Promote well-maintained water, wastewater, and stormwater infrastructure systems that serve the demands of existing and future residents and businesses while mitigating environmental impacts.

- **MOR Policy 19-1:** Plan for and provide appropriate levels and types of infrastructure based on the desired character of each neighborhood or district.

- **MOR Policy 19-2:** Ensure that development is appropriate and in scale with current and planned infrastructure capabilities.
- **MOR Policy 19-3:** Promote water-efficient fixtures and appliances to reduce water demand.
- **MOR Policy 19-4:** Expand the use of water recycling and graywater systems to treat and recycle wastewater and to further reduce water demand related to irrigation of landscaped areas.

**Sustainable City Action Plan.** The City adopted the Sustainable City Action Plan on February 2, 2010, with the purpose of moving the City towards becoming a more sustainable City. Sustainability is defined in this plan as maximizing individual benefits and minimizing negative environmental impacts to ensure the long-term health of the environment for the enjoyment and use of current and future generations. The Sustainable City Action Plan includes the following applicable initiatives, goals, and actions that are meant to guide City decision-makers in striving to achieve a sustainable City.

**Green Economy and Lifestyle Initiative 1.** Establish Long Beach as the leading California city for green business and green job growth.

*Green Economy and Lifestyle Action 8.* Implement a City green business program that incorporate goals and strategies for waste reduction, energy efficiency, water conservation, green purchasing, etc.

**Green Economy and Lifestyle Initiative 2.** Promote individual action that encourages active and green lifestyles, which supports a green economy.

*Green Economy and Lifestyle Action 1.* Update the City's green purchasing policy and the Sustainable Office Supply program to include additional requirements, green-only choices and automatic substitution to purchase materials with high postconsumer content that reduce quantity and toxicity of any generated waste.

*Urban Nature Action 7.* Incorporate sustainable principles and practices into golf course, marina, beach, park and playground/field design, and maintenance (grasscycling, reclaimed water irrigation, water conservation, recycling/waste management, and integrated pest management).

**Urban Nature Initiative 2.** Promote biodiversity citywide by encouraging the wide-scale use of native or edible landscapes.

*Urban Nature Action 3.* Ensure all open space and greening projects incorporate native/drought tolerant plants and use low-water strategies.

**Waste Reduction Initiative 1.** Increase diversion by reducing waste and increasing recycling and reuse.

Waste Reduction Action 1. Implement the Multi-Family Recycling Ordinance and continue to structure waste hauler contracts to offer economic incentives for recycling and disincentives for excess waste.

Waste Reduction Action 2. Establish commercial recycling guidelines intended to increase the recycling rate of the commercial sector, keeping waste out of the waste stream.

Waste Reduction Action 3. Establish an Environmental Depot facility that will recycle electronic waste and dispose of hazardous waste.

Waste Reduction Action 4. Establish a publicly accessible compost/mulch facility in the City and create beneficial uses for City greenwaste within City limits (grasscycling, mulching, etc.).

Waste Reduction Action 5. Develop commercial sector food-waste recovery programs and expand edible food redistribution programs.

Waste Reduction Action 6. Create comprehensive publicly accessible recycling infrastructure at all City facilities and locations and require businesses to have recycling pick-up and public recycling on site.

Waste Reduction Action 7. Encourage residential composting and expand the City's residential composting program.

Waste Reduction Action 8. Aggressively implement measures to decrease beach debris and expand beach recycling programs.

Waste Reduction Action 9. Investigate emerging conversion technologies as part of long-term waste management strategies.

Waste Reduction Action 10. Establish City purchasing guidelines that require the purchase of reusable and/or recycled products and require City operations to participate in take-back programs where available.

Waste Reduction Action 11. Implement an electronic record keeping/processing system for City operations to decrease the use of paper.

**Waste Reduction Initiative 2.** Increase awareness and promote the concepts of reduce, reuse, and recycle.

Waste Reduction Action 1. Create a public education campaign to reduce litter and waste by promoting the use of all types of reusable products instead of disposable products (reusable grocery bags, water bottles, etc.) and refusal of single-use items.

Waste Reduction Action 2. Continue public education efforts through continued support of Litter Free Long Beach and other educational programs that promote reduction of waste and litter.

Waste Reduction Action 3. Continue educating schoolchildren to recycle and reduce litter by continuing the Traveling Recycling Education Center (TREC) and Lunch with a Lizard programs.

Waste Reduction Action 4. Develop an environmental recycling awareness program to be implemented in targeted industries (hospitality, medical, restaurants, etc.).

Waste Reduction Action 5. Publicize and encourage free-cycling programs.

Waste Reduction Action 6. Promote sustainable landscaping practices and composting.

Waste Reduction Action 7. Encourage residential composting and expand the City's residential composting program.

Waste Reduction Action 8. Promote the use of post-consumer content products, thereby reducing demand for virgin materials.

Waste Reduction Action 9. Promote take-back programs that allow customers to return packaging or used products to manufacturer for proper disposal.

Waste Reduction Action 10. Promote the proper disposal of special wastes such as Household Hazardous Wastes and electronic waste.

**Waste Reduction Initiative 3.** Utilize recyclable materials as a raw materials source for industrial development to enhance the recycled-materials market in the City.

Waste Reduction Action 1. Continue existing operations of the Long Beach Recycling Market Development Zone (RMDZ) to foster economic development and job opportunities.

Waste Reduction Action 2. Expand RMDZ boundaries.

Waste Reduction Action 3. Promote RMDZ products in the local marketplace.

Waste Reduction Action 4. Offer incentives such as free press for businesses that participate in the "Litter Free Zone" program.

Waste Reduction Action 5. Encourage location of RMDZ businesses to the City by fast-tracking permits and licenses.

Waste Reduction Action 6. Promote community-based programs that provide jobs for disadvantaged individuals in RMDZ businesses.

Waste Reduction Action 7. Participate in e-waste recycling programs and support private e-waste programs and events.

Waste Reduction Action 8. Require City operations and encourage businesses and residents to buy recycled products to support the recycled products market.

Waste Reduction Action 9. Aggressively apply for grants and partner with others agencies to leverage funding to implement used oil and tire recycling programs and other litter programs.

Waste Reduction Action 10. Partner with the Conservation Corps and other local recycling businesses to further recycling and reuse.

**Water Initiative 1.** Ensure a sustainable water supply through conservation and reduced dependence on imported water.

Water Action 1. Make it illegal and socially unacceptable to waste water in the City.

Water Action 2. Reduce amount of water used for landscape irrigation by improving irrigation systems and by replacing grass lawns with landscapes that are more drought-tolerant, enhance the environment, require less maintenance, and reduce the amount and pollution load of urban runoff into the Long Beach coastal zone.

Water Action 3. Further reduce demand for potable water by converting industrial and irrigation demands to recycled water wherever practical and cost-effective.

Water Action 4. Continue research and development of cost-effective and environmentally responsible seawater desalination as an alternative, sustainable supply of potable water.

Water Action 5. Continue to improve management and yield of the groundwater basin that the City relies on for approximately 50 percent of its potable water.

Water Action 6. Update landscaping standards to require drought-tolerant and native landscaping to reduce water consumption.

**Water Initiative 2.** Implement low impact development strategies to reduce runoff and pollution at the source and increase the beneficial use of rainwater.

Water Action 1. Aggressively pursue strategies to keep trash off our beaches and pollution out of our ocean.

Water Action 2. Continue to manage urban and stormwater runoff by installing emerging treatment technologies into the storm drain system.

*Water Action 3.* Continue to work with upstream cities in the Los Angeles River Watershed to implement stormwater best management practices (BMPs) in the watershed to reduce pollutant loadings.

*Water Action 4.* Pursue legislation and secure funding to mitigate surface water and ground water pollution.

*Water Action 5.* Participate in and promote beach, neighborhood and community, and business corridor cleanups in order to keep our watersheds and beaches clean.

*Water Action 6.* Encourage the use of development techniques to direct rooftop runoff to pervious areas such as yards, garden beds, vegetated/soft bottom open channels, or on-site structural BMPs for capture, treatment, and reuse.

*Water Action 7.* Design streets to direct rainwater runoff to landscaped areas.

*Water Action 8.* Utilize and/or replace non-pervious surfaces with permeable materials (e.g., sidewalks, driveways, outdoor patios, and parking lots).

*Water Action 10.* Update development standards to require low impact development strategies such as detention basins, infiltration basins, infiltration trenches, conservation of natural areas, permeable pavements, treatment wetlands, bioswales, curb cuts, green roofs, rain gardens, and other pre/post construction BMPs.

*Water Action 11.* Expand Stormwater Management Education and Outreach programs to watershed-based programs and develop public-private educational partnerships to promote behavioral change.

#### **4.12.4 Methodology**

The effects of the proposed CAAP and Safety Element Update are evaluated below to determine whether they would result in a significant adverse impact on the environment. The impact analysis presented in this section is based on the effects that may occur on utilities and service systems subsequent to the approval of the proposed project as a result of the CAAP Actions and Adaptation Actions to meet the City's GHG reduction targets and to lessen the impacts of climate change on the community. Implementation of CAAP Actions and Adaptation Actions by the City, other agencies, or private developers would be subject to review to determine if a project-level CEQA analysis is required. The CAAP Checklist provided in Appendix D translates the CAAP Actions and Adaptation Actions into project-level measures. The discussion focuses on current levels of service provided to the project area and information on possible constraints or impacts to the utilities and/or service systems associated with the proposed project. The City's proposed CAAP will focus on addressing greenhouse gas (GHG) emissions reductions, and by result, would also function to reduce utility demand as a result of specific control measures related to energy resource conservation.

#### 4.12.4.1 Analysis Approach

Because the proposed project under evaluation in this Draft SEIR includes both the proposed CAAP and the Safety Element Update of the City's General Plan, and because specific design plans for future discretionary projects that may be facilitated by approval of the proposed project are not known at this time, the effects to utilities and service systems of the proposed project are evaluated on a programmatic level based on the project's consistency with goals and policies established in the Land Use (2019), Mobility (2013), and Conservation (1973) Elements of the City's General Plan and whether or not changes in utilities and service systems may result from implementation of the proposed project.

#### 4.12.5 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact on utilities providers if it would:

- Threshold 4.12.1:** Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Threshold 4.12.2:** Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- Threshold 4.12.3:** Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Threshold 4.12.4:** Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Threshold 4.12.5:** Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

#### 4.12.6 Project Impacts

**Threshold 4.12.1:** Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

OR

**Threshold 4.12.2:** Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

**CAAP: Less Than Significant Impact.** The proposed project includes the proposed CAAP, which was included as a mitigation measure (MM GHG-1) in the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development consistent with the adopted Land Use Element (LUE). The proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. Implementation of CAAP Actions by the City or other agencies, such as performance of municipal energy and water audits (BE-7), may not be subject to discretionary approval and project-level CEQA review but in the case of water audits would be designed to lessen the use of water in existing facilities. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed project would also be implemented through the application of the CAAP Consistency Checklist (Appendix D) to future discretionary projects to allow for CEQA streamlining for GHG analysis. In order to demonstrate consistency with the proposed CAAP, future projects would implement both mandatory (Tier 1) and encouraged (Tier 2) measures that support the CAAP Actions and would help achieve the City's GHG emissions targets. CAAP Actions are proposed for the sectors of Building and Energy (BE), Transportation (T), and Waste (W). If a project does not include specific Tier 1 measures, equivalent measures for GHG emission reductions must be provided for the project to utilize the Checklist in lieu of a project-level GHG analysis.

Tier 1 measures are required because they were quantified as part of the City's GHG reduction pathway for new development. Tier 1 measures or equivalent strategies would also be required for other improvements to existing development to demonstrate consistency with the goals and policies of the CAAP. Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, reduction of energy use and supply of renewable energy, and compliance with building energy codes and ordinances. There are no Tier 2 measures identified for the Building and Energy sector. Implementation of these measures would support the CAAP Actions for Building and Energy by requiring increased access to and incentives for clean electricity (BE-1 and BE-5), and increased use of solar panels and community solar (BE-2 and BE-3), or equivalent measures. Other Building and Energy CAAP Actions, supported by the measures listed on the Consistency Checklist would increase energy efficiency of existing facilities, electrifying new residential and commercial buildings, and reducing emissions from local oil and gas extraction, and are not anticipated to result in population growth or the construction or expansion of water infrastructure. Most of these new facilities such as solar panels and energy efficiency improvements would be constructed within or on existing or proposed buildings (e.g., rooftops). Their installation would likely not result in new employees and associated increases in population that would result in additional water demand, and any future growth in population and employment is anticipated to be consistent with the 2019 LUE growth projections analyzed in the 2019 Certified Program EIR. Furthermore, energy efficiency fixtures and renewable energy fixtures on existing buildings may require minimal water for maintenance and cleaning purposes but are not anticipated to require substantial additional water demands for operation.

Tier 1 measures for the Transportation sector include trip reduction features to reduce vehicle miles traveled (VMT), incorporation of pedestrian, bicycle, and electric vehicle charging infrastructure, and

compliance with the City's Transportation Demand Management (TDM) Ordinance and Traffic Impact Analysis (TIA) Guidelines. Tier 2 measures for the Transportation Sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Implementation of Tier 1 measures would support the CAAP Actions for Transportation by improving transit service (T-1), providing bicycle, pedestrian, and electric vehicle infrastructure (T-2, T-3, and T-5), complying with City TDM requirements (T-7), and complying with the City's Transportation Impact Guidelines to analyze VMT pursuant to SB 743 (T-9). Implementation of the Tier 2 measures would support CAAP Actions to increase employment and residential development along transit corridors and increased density and mixing of land uses (T-6 and T-8). Similar to the Building and Energy CAAP Actions above, future projects that include the development of new transit facilities and increased residential, commercial, and mixed-use development would be evaluated for transit service at the time such discretionary projects are submitted for review and approval. The PlaceTypes established by the adopted LUE were established in order to allow for greater flexibility, density, and mix of compatible land uses, including increased density near transit. The 2019 Certified Program EIR concluded that the water demands associated with the General Plan anticipated buildout scenario (2040) would be within the capacity of the LBWD to serve the project. Therefore, as the CAAP Actions would apply to future development anticipated by the adopted LUE, any future improvements facilitated by the proposed project would also be within the LBWD service capacity. Mandatory Tier 1 measures related to bicycles and pedestrians would include improvements that are not anticipated to result in development of structures that would require increased water demand or the construction or expansion of water facilities. The measures to support the CAAP Actions would promote increased housing and employment along major transit corridors and increased density and mixing of land use; however, such development would be consistent with the adopted LUE and would therefore, not result in increased water demand or result in the construction or expansion of water infrastructure as a result of the proposed CAAP.

Tier 1 measures required for the Waste sector include the recycling of appropriate materials and organic waste diversion in future developments. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion. Implementation of the Tier 1 measures would support CAAP Actions for Waste by requiring recycling (W-1) and organic waste diversion (W-2). Other CAAP Actions for Waste supported by the measures listed on the Consistency Checklist would expand communitywide participation in organic waste collection and diversion. Tier 1 and Tier 2 measures to support the CAAP Actions for Waste are not anticipated to result in significant population growth or additional water demand.

Tier 1 and Tier 2 measures to support the CAAP Actions for new renewable energy, transportation, solid waste, or other facilitates implemented by future discretionary projects may generate a limited number of new employees but that limited number of employees would likely not impact the demand for water; further, additional water demand for maintenance of new energy efficient features would be minimal. All future discretionary projects that utilize the CAAP Consistency Checklist to achieve the City's GHG emissions targets would be reviewed under CEQA and would be required to undergo the Site Plan Review process, during which the City would identify potable water systems serving a project and would assess Plumbing Permit and Plan Check Fees. Payments of these fees would fund future upgrades to water facilities within the planning area. Therefore,

water infrastructure that is adequately sized to serve existing and future needs would be provided to all future discretionary projects.

The proposed CAAP also identifies Adaptation Actions, which provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change impacts in particular locations throughout the City. While the Adaptation Actions are not required to meet the City's GHG reduction targets, they are included on the CAAP Checklist to be incorporated as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP. These policies are intended to improve the ability of Long Beach and its residents and businesses to adapt to climate change and related impacts now and in the future and include drought actions that include the continuation of programs to meet and exceed State water use efficiency targets as well as new actions to increase the supply and use of recycled water, expand green infrastructure and streets, and increase the capture and storage of rainfall. These Adaptation Actions are expected to reduce water use in the City through efficiency measures, which would result in a beneficial impact.

For the reasons stated above, the proposed CAAP's impacts on water supplies and the relocation or construction of new or expanded water facilities would be less than significant. No mitigation is required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to water supplies or the construction of new or expanded water facilities. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or result in any physical development that would result in impacts related to increased water demand or the relocation or construction of new water facilities. Therefore, the Safety Element Update would have no impact on water facilities or supply. No mitigation is required.

**Threshold 4.12.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

OR

**Threshold 4.12.3: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

**CAAP: Less Than Significant Impact.** As discussed previously, the proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed CAAP would not in itself grant any entitlements for development that would result in changes to utilities and service systems. As described above, the proposed project would also be implemented through the application of the CAAP Checklist (Appendix D) to future discretionary projects to allow for CEQA GHG streamlining. In order for future discretionary projects to demonstrate consistency with the CAAP, the CAAP Checklist includes Tier 1 and Tier 2 measures to support the CAAP Actions related to Building and Energy designed to ensure that future discretionary projects reduce GHG emissions, such as through the increased use of clean electricity or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Tier 1 measures to support the CAAP Actions designed to ensure reductions in the use of energy for existing buildings, such as through energy efficiency improvements and increased use of solar power and clean electricity sources would not result in additional demands for wastewater treatment. Tier 1 and Tier 2 measures to support the CAAP Actions related to expansion of the bicycle and pedestrian network and other measures to reduce vehicle miles traveled (VMT) would promote increased housing and employment along major transit corridors and increased density and mixing of land uses; however, such development would be consistent with the adopted LUE and would therefore, not result in increased demand for wastewater services or result in the construction or expansion of wastewater infrastructure as a result of the proposed CAAP. Tier 1 and Tier 2 measures to support the CAAP Actions for Waste include requiring recycling and organic waste collection and processing to help facilitate existing City efforts to expand communitywide participation in organic waste collection and diversion. These measures to support the CAAP Actions would not result in additional population growth or the need for additional wastewater facilities. Additionally, these measures to support the CAAP Actions would be implemented through future discretionary projects. All future discretionary projects that would utilize the CAAP Consistency Checklist would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted, including sewer capacity considerations as part of the City development review and approval process. For example, projects would be required to pay Sewer Capacity Fees to fund the construction, reconstruction, maintenance, and operation of existing and future improvements to the sanitary sewer system, including improvements outlined in the City's 2021 Capital Improvement Program.

Additionally, the proposed CAAP also identifies Adaptation Actions, which provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change impacts in particular locations throughout the City. While the Adaptation Actions are not required for future development, they are included on the Consistency Checklist, as implementation of some of these strategies may be applicable to future discretionary projects. Those policies are intended to improve the ability of Long Beach and its residents and businesses to adapt to climate change and related impacts and include sea level rise and flooding, with adaptation actions including inventorying and flood-proofing or relocating vulnerable sewer pump stations, which would result in a beneficial impact related to wastewater treatment services.

Therefore, potential impacts of the proposed CAAP related to wastewater treatment or the construction of wastewater supply or conveyance facilities would be less than significant, and no mitigation is required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to wastewater treatment or the construction of wastewater supply or conveyance facilities. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or result in any physical development that would result in impacts related to wastewater treatment or the construction of wastewater treatment or conveyance facilities. Therefore, the Safety Element Update would have no impact on wastewater treatment facilities. No mitigation is required.

**Threshold 4.12.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

**CAAP: Less Than Significant Impact.** As discussed previously, the proposed CAAP is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed CAAP would not in itself grant any entitlements for development that would result in changes to utilities and service systems. The proposed CAAP includes Tier 1 and Tier 2 measures to support the CAAP Actions related to Building and Energy designed to ensure that future discretionary projects reduce GHG emissions, such as through the increased use of clean electricity or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals. Tier 1 measures to support the CAAP Actions designed to ensure reductions in the use of energy for existing buildings, such as through energy efficiency improvements and the increased use of solar power and clean electricity sources, are not anticipated to result in additional impervious surfaces that would convey additional stormwater drainage. Tier 1 and Tier 2 measures to support the CAAP Actions for Waste, including encouraging recycling compliance and expanded organic waste collection to expand communitywide participation in organic waste collection and diversion, are not anticipated to result in any changes to pervious surfaces that would affect stormwater drainage. Tier 1 and Tier 2 measures to support the CAAP Actions for Transportation related to expansion of the bicycle and pedestrian network and other measures to reduce VMT may result in increased impervious surface area, which would reduce infiltration. Depending on the size and

nature of the future discretionary projects that would implement these CAAP Actions, a Water Quality Management Plan (WQMP) would be developed on a project-specific basis to address post-construction urban runoff and stormwater pollution from new development and significant redevelopment projects. Detailed information about on-site hydrology, runoff flow rates, and pollutant loads are included in these project-specific analyses. The hydrological analyses included in the WQMPs prepared for future projects would identify BMPs and improvements to the existing storm drain system that would ensure that the City would be able to adequately handle increased stormwater runoff as a result of the implemented measures to support the CAAP Actions.

All future discretionary projects that would utilize the CAAP Consistency Checklist would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted, including requirements to comply with the provisions of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), or any other subsequent applicable permits. Furthermore, as future individual projects are proposed, the City would review grading plans and construction documents to identify project features aimed at reducing construction impacts to storm drain facilities. Future discretionary projects would also need to pay Sewer Capacity Fees to fund the construction, reconstruction, maintenance, and operation of existing and future improvements to the sanitary sewer system, including improvements outlined in the City's 2021 Capital Improvement Program.

The proposed CAAP also identifies Adaptation Actions, which provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change in particular locations throughout the City. While the Adaptation Actions are not required, they are included on the Consistency Checklist for future discretionary projects to implement as applicable, and could help lessen the impacts of climate change on future development projects and the community. These policies are intended to improve the ability of Long Beach and its residents and businesses to adapt to climate change and related impacts now and in the future and include sea level rise and flooding actions that include updating the City's existing Stormwater Management Plan and inventory and flood-proof vulnerable sewer pump stations. These Adaptation Actions are expected to improve storm water drainage throughout the City, which would result in a beneficial impact.

Therefore, potential impacts of the proposed CAAP related to the relocation or construction of new or expanded stormwater drainage facilities would be less than significant. No mitigation is required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to the relocation or construction of new or expanded stormwater drainage facilities. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element: No Impact.** The project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning

action intended to comply with State law. Text changes to the Safety Element would not facilitate or result in any physical development that would result in impacts related to the relocation or construction of new stormwater drainage systems. Therefore, the Safety Element Update would have no impact on stormwater facilities. No mitigation is required.

**Threshold 4.12.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

**CAAP: Less Than Significant Impact.** Refer to Section 4.3, Energy, for further discussion related to project-related impacts with respect to electric power and natural gas facilities as well as a discussion of solar energy.

As discussed previously, the proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval for any physical improvements or development. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed CAAP would not in itself grant any entitlements for development that would result in changes to utilities and service systems.

The Tier 1 measures to support the CAAP Actions for Building and Energy included on the Consistency Checklist include actions that encourage the construction or installation of new facilities aimed to increase access and incentives for clean electricity (BE-1, and BE-5), and increased use of solar panels and community solar (BE-2 and BE-3), or equivalent alternative measures. Other Building and Energy CAAP Actions supported by the measures listed on the Consistency Checklist would increase energy efficiency of existing facilities, electrifying new residential and commercial buildings, and reducing emissions from local oil and gas extraction. Future development of larger renewable energy facilities, such as future discretionary projects that would promote community solar (BE-3) would be developed consistent with the land uses and standards of the adopted LUE and resulting PlaceTypes, would be subject to CEQA review, and would therefore, be required to mitigate any impacts as necessary. Additionally, these CAAP Actions are expected to promote energy efficiency in existing and new buildings, resulting in the reduction of electric power and natural gas demand.

Tier 1 and Tier 2 measures to support the CAAP Actions related to Transportation include expansion of the bicycle and pedestrian network and other measures to reduce VMT and are designed to focus increased housing and employment along major transit corridors and increased density and mixing of land uses. Future development consistent with these Tier 1 and Tier 2 measures to support the CAAP Actions would also be consistent with the adopted LUE and would therefore, not result in increased demand for electric power or natural gas or result in the construction or expansion of electricity and natural gas infrastructure beyond the anticipated General Plan buildout analyzed in the 2019 Certified Program EIR. The Tier 1 measures to support the CAAP Actions for Waste include the recycling of appropriate materials and organic waste collection and processing to expand communitywide participation in organic waste collection and diversion. These measures to support the CAAP Actions would not result in additional population growth or the need for additional natural

gas or electricity facilities but would rather help implement the growth projections contemplated in the LUE in the most sustainable manner possible. Additionally, all future discretionary projects that would utilize the CAAP Consistency Checklist would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted. Where necessary, infrastructure improvements would be made to serve proposed projects and subject to further environmental review depending on the extent and nature of those improvements.

The proposed CAAP also identifies Adaptation Actions, which provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change in particular locations throughout the City. While the Adaptation Actions are not required for future development to meet the City's GHG reduction targets, they are included on the Consistency Checklist for future discretionary projects to incorporate relevant Adaptation Actions, as applicable, to demonstrate consistency with the overall goals and strategies of the CAAP. Those policies are intended to improve the ability of Long Beach and its residents and businesses to adapt to climate change and related impacts and include extreme heat actions such as increasing the presence of cool roofs and cool walls and identifying future vulnerability potential for power outages related to extreme heat. These Adaptation Actions are expected to reduce electric and gas usage and improve resiliency throughout the City, which would result in a beneficial impact related to demand for these services.

Therefore, implementation of the proposed project would result in less than significant impacts related to the construction or relocation of existing electricity and natural gas facilities, and no mitigation would be required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to the construction or relocation of existing electricity and natural gas facilities. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or result in any physical development that would result in impacts related to the relocation or construction of new electricity or natural gas facilities. Therefore, the Safety Element Update would result in no impacts to electricity or natural gas facilities. No mitigation is required.

**Threshold 4.12.1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

**CAAP: Less Than Significant Impact.** As discussed previously, the proposed project is considered a policy/planning action and approval of the CAAP does not constitute approval for any physical improvements or development. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed CAAP would not in itself grant any entitlements for development that would result in changes to utilities and service systems. Tier 1 measures to support the CAAP Actions related to Building and Energy are designed to ensure reductions in the use of energy for existing buildings, such as through energy efficiency improvements and the increased use of solar power and clean electricity sources. These CAAP Actions are not anticipated to result in additional population growth or demand for additional telecommunications facilities. Tier 1 and Tier 2 measures to support the CAAP Actions related to Transportation include expansion of the bicycle and pedestrian network and other measures to reduce VMT and are designed to focus housing and employment along major transit corridors and increased density and mixing of land uses. Future development consistent with the CAAP Actions would also be with the adopted LUE and would therefore, not result in increased demand for telecommunication facilities beyond the anticipated General Plan buildout analyzed in the 2019 Certified Program EIR. The Tier 1 measures to support the CAAP Actions for Waste require recycling compliance and organic waste collection and processing to expand communitywide participation in organic waste collection and diversion. These measures to support the CAAP Actions would not result in additional population growth or the need for additional telecommunication facilities. All future discretionary projects that would utilize the CAAP Consistency Checklist would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted. Where necessary, infrastructure improvements would be made to existing telecommunications facilities in order to meet customer demands and achieve compliance with the City's goal of investing in telecommunications infrastructure systems (General Plan Policy LU-M-13). Most telecommunications facilities in the City are currently located within existing right-of-way areas and/or are located underground. As such, environmental impacts associated with future improvements to telecommunications facilities are anticipated to be minimal, as these facility areas would have previously been disturbed through association with past infrastructure improvements. Furthermore, future telecommunications infrastructure improvements may be subject to further environmental review depending on the extent and nature of those improvements.

Therefore, implementation of the proposed project would result in less than significant impacts related to the construction or relocation of existing telecommunications facilities, and no mitigation would be required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to the construction or relocation of existing telecommunications facilities. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or result in any physical development that would result in impacts related to the relocation or construction of new telecommunication facilities. Therefore, the proposed Safety Element update would result in no impacts to telecommunications facilities. No mitigation is required.

**Threshold 4.12.4: Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

**Or**

**Threshold 4.12.5: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.**

**CAAP: Less Than Significant Impact.** As discussed previously, the proposed project is considered a policy/planning action and does not constitute approval for any physical improvements or development. Additional analysis will be needed to determine the potential impacts of how CAAP Actions will be implemented at specific locations, and future improvements would be analyzed at the project level and would be subject to CEQA as required. The proposed CAAP would not in itself grant any entitlements for development that would result in changes to utilities and service systems. Measures to support the CAAP Actions related to Building and Energy are designed to ensure that future discretionary projects reduce GHG emissions, such as through the increased use of clean electricity or solar power, to ensure consistency with the CAAP to achieve the City's overall GHG emissions goals and to ensure reductions in the use of energy for existing buildings, such as through energy efficiency improvements and the increased use of solar power and clean electricity sources. Measures to support the CAAP Actions related to Transportation include the expansion of the bicycle and pedestrian network and other measures to reduce VMT and would promote increased housing and employment along major transit corridors and increased density and mixing of land uses. Future development consistent with these CAAP Actions would also be consistent with the adopted LUE and would therefore, not result in increased solid waste generation beyond the anticipated General Plan buildout analyzed in the 2019 Certified Program EIR.

One of the intentions of the CAAP is to reduce GHG emissions associated with solid waste generation. Tier 1 measures to support the CAAP Actions for Waste would increase solid waste diversion, reducing the amount of solid waste that would be in landfills through actions that ensure compliance with State law requirements for multifamily and commercial property recycling programs (W-1), require expanded organic waste collection and processing (W-2, W-3, and W-4). Implementation of the CAAP would reduce solid waste generation in the City, and impacts would be beneficial. Any new facilities needed to support increased waste diversion (i.e., transfer facilities or composting facilities) would be required to comply with existing regulations for the handling of solid waste, including the applicable permitting requirements of CalRecycle.

All future discretionary projects that would implement measures to support the CAAP Actions would be subject to review under CEQA and required to comply with any requirements in effect when the review is conducted, including all applicable federal, State, and local statutes and regulations related

to solid waste. The CIWMB is the State agency tasked with overseeing, managing, and tracking solid waste generated in the State each year. The CIWMB promotes a sustainable environment, which encourages that resources are reused or recycled within local jurisdictions. In addition, the CIWMB promotes the use of technologies aimed at diverting solid waste from landfills. For example, the State passed the CIWM Act mandating that local jurisdictions achieve a 25 percent diversion rate by 1995 and a 50 percent diversion rate by 2000. Furthermore, Section 18.67.070, Compliance with the WMP, of the City's Municipal Code requires that all new projects requiring demolition recycle, reuse, or divert 60 percent of construction waste from landfills to disposal sites. All future discretionary projects would continue to be subject to the appropriate planning and permitting processes, thereby ensuring compliance with applicable waste laws and regulations.

The proposed CAAP also identifies Adaptation Actions, which provide a general vision of the types, locations, and sequencing of more detailed studies and potential future projects that may be needed to lessen climate change in particular locations throughout the City. While the Adaptation Actions are not required for future development, they are included on the Consistency Checklist, as implementation of some of these strategies may be applicable to future discretionary projects.

Therefore, the proposed project would result in less than significant impacts related to the generation of solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure. No mitigation is required.

In addition, it should be noted the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions. The 2019 Certified Program EIR concluded that the LUE would result in less than significant impacts related to the generation of solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure. As the proposed CAAP would not alter the land uses designations or development assumptions of the adopted LUE, the proposed project would not alter the less than significant impact identified in the 2019 Certified Program EIR. No mitigation is required.

**Safety Element Update: No Impact.** The project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. Text changes to the Safety Element would not facilitate or result in any physical development that would result in impacts related to solid waste generation. Therefore, the Safety Element update would result in no impacts to solid waste facilities. No mitigation is required.

#### **4.12.7 Level of Significance Prior to Mitigation**

Construction and operational impacts related to utilities and service systems would be less than significant, and no mitigation is required.

#### **4.12.8 Compliance Measures and Project Design Features**

The proposed project does not include any physical development of any buildings or structures, would not be required to adhere to any compliance measures, and as a planning action, does not include any project design features related to utilities and service systems. Mitigation Measures

No mitigation is required for the proposed project.

#### **4.12.9 Level of Significance after Mitigation**

There would be no significant unavoidable adverse impacts related to utilities and service systems, and no mitigation is required.

#### **4.12.10 Cumulative Impacts**

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for utilities. The planning area includes the entire 50 square miles within the limits of the City of Long Beach; therefore, the cumulative impact area for each utility is the service area of the respective service provider. The cumulative impact area for wastewater treatment is defined as the City and the LACSD, the cumulative impact area for water infrastructure includes the service territory of the LBWD, the cumulative impact area for solid waste is the County of Los Angeles, the cumulative impact area for electricity and natural gas is SCE and SoCalGas, respectively, and the cumulative impact area for cable, telephone, and internet services is defined as the service territory for Spectrum Communications, Frontier Communications, and AT&T U-Verse. Cumulative projects in the service area for each utility provider would cause significant impacts if they cause an exceedance of wastewater treatment requirements of the Los Angeles RWQCB with jurisdiction in Long Beach and Los Angeles County, generate wastewater in exceedance of the combined capacities of wastewater treatment plants that serve the planning area, create the need for additional water supplies, generate electricity or natural gas demand in exceedance of SCE or SoCalGas' existing infrastructure, or generate solid waste in exceedance of the combined capacities of the landfills that serve the planning area and the County.

As stated previously, the proposed CAAP would be consistent with the adopted LUE, and thus any service demands from new structures that may result from implementation of measures to support the CAAP Actions after adoption of the CAAP would not result in additional impacts beyond what was anticipated in the 2019 Certified Program EIR under the General Plan buildout (2040). Adoption of the CAAP would not result in a population increase greater than projected for the buildout of the adopted LUE because the CAAP would not change local land use plans, and potential future facilities supported by the CAAP Actions would result in only minor employment increases and associated population growth, if any. Rather, the proposed CAAP supports existing land use plans and policies that seek to concentrate the expected population growth in City centers and along transit corridors and provides CAAP Actions for the City to implement the buildout anticipated in the General Plan LUE while meeting their GHG reduction targets. The proposed project does not include physical improvements or development. Future projects that implement CAAP Actions would be subject to project-level CEQA review as required.

As described previously, the Tier 1 measures to support the CAAP Actions required for future discretionary projects utilizing the CAAP Consistency Checklist, as well as other measures to support the CAAP Actions, including measures related to Building and Energy, Transportation, Waste, and Adaptation Actions, seek to reduce electricity and natural gas demand through improving building energy efficiency, and includes measures that would reduce water consumption and the wastewater generated from this consumption as well as energy used within existing and new developments. In

addition, the measures to support the CAAP Actions also include measures to increase diversion of solid waste from landfills. Overall, implementation of the CAAP would promote water conservation, energy efficiency, and the diversion of solid waste. Therefore, the CAAP's contribution would be cumulatively beneficial as it would reduce consumption of water and energy and generation of wastewater and solid waste at the program level. Additionally, future projects that implement CAAP Actions would be subject to project-level CEQA review.

The project would also bring the General Plan into compliance with a number of State laws relating to climate change and resiliency through the proposed Safety Element Update, which as a planning/policy action would not facilitate or entitle any physical development that would result in impacts to utilities and service systems.

Therefore, the proposed project's contribution to impacts on utilities and service systems would not be cumulatively considerable, and no mitigation would be required.

## 5.0 ALTERNATIVES

### 5.1 INTRODUCTION

Section 15126.6(a) of the *California Environmental Quality Act (CEQA) Statute & Guidelines (State CEQA Guidelines, Section 15126.6)* requires that an Environmental Impact Report (EIR) include a discussion of a reasonable range of project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives.” CEQA does not require an EIR to consider every conceivable alternative to a project, but rather it must consider a range of feasible alternatives that would assist decision-makers and the public in evaluating the comparative merits of alternatives to a proposed project. Therefore, this chapter identifies potential alternatives to the proposed Climate Action and Adaptation Plan and Safety Element Update (proposed project) and evaluates them as required by CEQA.

Key provisions of the *State CEQA Guidelines* on alternatives (Section 15126.6[b] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in this Subsequent EIR (SEIR):

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the Project Objectives or would be more costly (15126.6[b]).
- The specific alternative of “no project” shall also be evaluated along with its impact (15126.6[e][1]). The “no project” analysis shall discuss the existing conditions at the time the Notice of Preparation is published and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (15126.6[e][2]).
- The range of alternatives required in an EIR is governed by the “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent) (15126.6[f]).

- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (15126.6[f][2][A]).
- If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project, which must be in close proximity to natural resources at a given location (15126.6[f][2][B]).
- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (15126.6[f][3]).

Pursuant to the guidelines stated above, alternatives to the proposed project are considered and evaluated in this Draft SEIR. These alternatives were developed in the course of project planning and environmental review. The discussion in this section provides:

- A description and analysis of impacts for each of the alternatives considered;
- Conclusions regarding the alternative's: (1) ability to attain the Project Objectives (as stated below); and (2) merits compared to the merits of the proposed project.

## 5.2 PROPOSED PROJECT

### 5.2.1 Project Characteristics

As described in further detail in Chapter 3.0, Project Description, the proposed project includes the approval of a Climate Action and Adaptation Plan (CAAP) and an update to the Safety Element for incorporation into the City of Long Beach's (City) General Plan. The proposed project includes the proposed CAAP, which was included as a mitigation measure in the General Plan Land Use and Urban Design Elements EIR (2019 Certified Program EIR) and is a policy document that provides a framework outlining requirements, incentives, and potential policies to ensure sustainable development and reduce the City's greenhouse gas (GHG) emissions. The proposed project also includes text changes to the Safety Element, to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change and resiliency. These text amendments to the Safety Element represent a planning action intended to comply with State law. It should be noted that the proposed project is a policy/planning action and does not include any physical improvements or development that would result in physical environmental impacts.

The analysis included throughout this Draft SEIR concluded that implementation of the proposed project would not result in any significant and unavoidable impacts. Therefore, the Alternatives discussion focuses on the alternative's ability to substantially lessen the proposed project's impacts, even though such impacts were determined to be less than significant.

### 5.2.2 Project Objectives

The City has established the following intended Project Objectives, which would aid decision-makers in their review of the project and its associated environmental impacts:

1. Provide a goal post against which the cumulative progress of the City's GHG reduction actions over time can be evaluated.
2. Comply with requirements of the Global Covenant of Mayors, to which the City of Long of Beach has been a signatory since 2015.
3. Demonstrate the City's commitment to global efforts to address climate change.
4. Illustrate the relationship between the City's reduction target and the State's own reduction goals for compliance with State mandates for cities related to GHG reduction.
5. Demonstrate a level of GHG emissions below which Long Beach would have less than cumulatively considerable GHG impacts for future environmental review projects.
6. Create a plan that will help Long Beach realize the following: low carbon, climate resilient buildings and neighborhoods; safe and adaptable infrastructure; protected and enhanced natural systems; a healthy, resilient and ready population; and residents and businesses with minimized carbon footprint.
7. Incorporate climate adaptation and resiliency considerations and strategies consistent with the CAAP in the General Plan Safety Element in order to ensure the City's goals and policies related to public safety recognize and address climate impacts related to extreme heat, drought, and sea level rise occurrences.
8. Comply with the Mitigation Measure (MM) GHG-1 in the Certified General Plan Land Use and Urban Design Elements Program EIR (2019), which required the City to adopt a greenhouse gas (GHG) Reduction Plan or Climate Action and Adaptation Plan (CAAP).

### **5.2.3 Project-Related Impacts**

As described further in Chapter 2.0, Introduction, as the proposed project would not result in any physical land use changes or physical improvements, and no impacts would occur related to the following topics: agriculture and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, and wildfire.

As described in Chapter 4.0, Existing Environmental Setting, Environmental Analysis, Impacts, and Mitigation Measures, the proposed project would result in less than significant impacts related to aesthetics, air quality, energy, greenhouse gas emissions, land use and planning, noise, population and housing, public services, recreation, transportation, tribal cultural resources, and utilities and service systems. No mitigation measures would be required to reduce project-related impacts, and the proposed project would not result in any significant unavoidable impacts.

## 5.3 ALTERNATIVES ANALYSIS

### 5.3.1 Alternatives Rejected from Further Consideration

*State CEQA Guidelines* Section 15126.6(f)(1) cites the following factors to be considered when a lead agency is assessing the feasibility of an alternative: site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent).

The City considered the alternatives described below but rejected these alternatives from further analysis in this Draft SEIR because they were determined to be infeasible, or they would not meet the basic Project Objectives. The proposed project would not result in any significant impacts. Therefore, there are no alternatives that would reduce significant impacts of the proposed project. The reasons for dismissal of these alternatives are discussed below.

#### 5.3.1.1 Alternative Planning Area

Section 15126.6(c) of the *State CEQA Guidelines* suggests that EIRs identify any alternatives that were considered by the lead agency but were rejected during the scoping process and briefly explain the reasons underlying the lead agency's determination. An alternative involving implementing the proposed project within a different location was determined to be infeasible during the scoping process for the reasons discussed below.

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant impacts of the project. The key question and first step in the analysis is whether any of the significant impacts of the project would be avoided or substantially lessened by relocating the project. Only developments or locations that would avoid or substantially lessen any of the significant impacts of the project need be considered for inclusion in the EIR (*State CEQA Guidelines*, Section 15126.6[f][2][A]). If it is determined that no feasible alternative locations exist, the EIR must disclose the reasons for this conclusion (*State CEQA Guidelines*, Section 15126.6[f][2][B]).

The proposed project is the adoption of the proposed CAAP and minor text amendments to update the General Plan Safety Element for the entire planning area of the City of Long Beach. The planning area encompasses the full boundaries of the City and cannot be located in a different planning area because the project has been draft/designed for incorporation in the City of Long Beach, specifically the Planning Area addressed by the City's General Plan. The City is responsible for meeting State regulations regarding GHG reduction for the entire City, so a smaller geographical area could not be considered. Additionally, as the lead agency, the City would not have the authority to implement the proposed project within an alternative planning area because it does not have discretionary power to make decisions for another jurisdiction. Because the City does not have jurisdiction over areas outside of its boundaries and cannot impose General Plan policies or other planning or policy actions on such areas, no alternative planning areas are feasible. Further, an alternative site or project location would be inconsistent with all Project Objectives to address reduction of GHG

emissions within the City. Therefore, this alternative was rejected from further consideration and is not analyzed further in this Draft SEIR.

### 5.3.1.2 Smart Growth Alternative

Under the Smart Growth Alternative, the City would encourage development within the City to occur utilizing the key concepts of “smart growth”. Smart growth is a land use planning concept that would reduce GHG emissions by updating zoning and land use policies to increase high-density and mixed-use development within the City, resulting in reduced vehicle miles traveled (VMT). This was the intent of the recently adopted General Plan Land Use Element (2019). The adopted Land Use Element (LUE) and associated 2019 Certified Program EIR addressed future growth in the City through the horizon year 2040, based on demographic projections provided to the City by State and regional agencies. This included the Southern California Association of Governments’ (SCAG) forecasted population growth of 18,320 new residents and employment growth of 28,511 new jobs in the City by 2040. In addition, an Assessment of Fair Housing with the United States Department of Housing and Urban Development was conducted by the City. As an outcome of this assessment, it was determined that the City has a need for 21,476 housing units to address existing housing needs due to overcrowding. In total, 28,524 housing units are required to address future (7,048) and existing (21,476) housing needs. The adopted LUE and 2019 Certified Program EIR focused strategic growth and increased densities in the Downtown area, around regional-serving facilities, along major corridors, and in transit-oriented development areas. The primary objective of the adopted LUE was to create land use policies – smart growth policies – that increase higher-density and mixed-use development in appropriate locations and thereby decrease citywide GHG emissions and VMT. The efficiency of the location of land uses in the adopted LUE (i.e., infill development policies and sites) would result in a 19 percent decrease in VMT per household compared to existing conditions.

The proposed project includes the adoption of the proposed CAAP, which was included as a mitigation measure from the 2019 Certified Program EIR for the LUE. The adopted LUE is essentially a smart growth plan, targeting densities and development to reduce GHG emissions and VMT. The CAAP is designed to help implement the LUE including its smart growth strategies.

The Smart Growth Alternative would presumably promote higher-density development within the City than is currently anticipated by the City’s adopted LUE and Zoning Code. Development would be encouraged near transit corridors and would place a greater emphasis on emissions reductions in the transportation sector through a greater reduction in VMT. However, this alternative would result in greater physical impacts (air quality, noise, and transportation/traffic) than the proposed project because of the intensification of infill under this alternative and facilitation of development as a result of changes to land use policies. As noted above, the City has already adopted a smart growth approach to land use in order to reduce VMT and GHG emissions through the LUE and furthered by the CAAP. The adopted LUE intensified development in strategic locations, accommodating the anticipated growth of 28,524 housing units and 13,542,617 square feet of non-residential land uses through the year 2040, while decreasing GHG emissions and VMT. Any revised land use plan, including higher density development or reallocation of land use Placetypes, would

result in greater physical impacts than anticipated for the LUE project analyzed in the 2019 Certified Program EIR, for which the proposed CAAP is a mitigation measure.

The proposed project does not facilitate or encourage future development, but rather provides measures that would be implemented with future discretionary projects to ensure consistency with the CAAP and LUE to achieve the City's GHG reduction targets. A Smart Growth Alternative would require the City to revise its current land use policies and thus would not meet the Project Objective of promoting consistency with the land use policy direction and growth anticipated in the adopted General Plan. Therefore, this alternative is rejected from consideration and is not analyzed further in this SEIR because it would result in greater environmental impacts than the proposed project and would not meet the project's objective of being consistent with the land use policy direction and growth anticipated in the City's General Plan.

#### 5.3.1.3 Reduced Project Alternative

The Reduce Project Alternative considers a reduced project in which the proposed CAAP would be included but amendments to the Safety Element would not be included. Under this alternative, the current Safety Element would continue to guide the City's policies and strategies related to public safety. This alternative is infeasible because State law requires that a city's General Plan include a safety element to address risks associated with disasters, including disasters that may result from climate change. The City of Long Beach's current Safety Element provides policies and strategies for various hazards and disasters within the planning area but does not specifically address climate change. The proposed text amendments to the Safety Element would provide policies and strategies for climate adaptation and resiliency consistent with the CAAP. As such, the amendments to the Safety Element as proposed by the project are necessary in order to create consistency between the two regulatory documents.

No other reduced project alternatives exist as the proposed project is the adoption of a CAAP and text amendments to update the General Plan Safety Element. It is not feasible to adopt only portions of the proposed CAAP as all components contained in the CAAP work together to balance goals to reduce the City's GHG emissions and the State's GHG reduction target of 40 percent below 1990 levels by 2030 per Senate Bill (SB) 32 and achieve the objectives described above, as well as the objectives contained in the adopted LUE, for which the proposed CAAP was included as a mitigation measure in the 2019 Certified Program EIR. In addition, the updated Safety Element is designed to establish and ensure internal consistency with the other General Plan Elements, as required by Government Code Section 65300.5. Further, the Reduced Project Alternative would be inconsistent with all Project Objectives. Therefore, the Reduced Project Alternative is rejected from further consideration and is not analyzed further in this Draft SEIR.

#### 5.3.2 Selection of Alternatives

Section 21100 of the Public Resources Code and Section 15126.6 of the *State CEQA Guidelines* require an EIR to identify and discuss a No Project Alternative and a reasonable range of alternatives to the proposed project that would feasibly attain most of the basic objectives of the proposed project and that would avoid or substantially lessen any of the significant environmental impacts. As described above, there are no feasible alternatives other than the No Project Alternative, which is

required by *State CEQA Guidelines* Section 15126.6[e][1]). The following alternative is considered in this Draft SEIR:

- **Alternative 1: No Project Alternative.** This alternative would involve no adoption of the proposed CAAP and no text amendments to update the City’s General Plan Safety Element. The existing General Plan Safety Element (2002) would continue to guide and regulate the City related to public safety and no formal planning and policy document would be adopted to guide the City’s GHG reduction goals nor would the safety element be updated to address the impacts of climate change. Further, Mitigation Measure (MM) GHG-1 from the 2019 Certified Program EIR would not be implemented as required.

Overall, environmental impacts with regard to aesthetics, air quality, energy, greenhouse gas emissions, land use and planning, noise, population and housing, public services, recreation, tribal cultural resources, transportation, and utilities and service systems associated with the proposed project were found to be less than significant. No mitigation was required to reduce impacts to less than significant levels, and no significant and unavoidable impacts would result from project implementation. The main objective of an alternatives analysis is to consider a range of alternatives that would substantially lessen any significant effects of a project. The proposed project would not result in any significant impacts, but the No Project Alternative is presented even though it does not represent a significant reduction in project-related impacts.

Table 5.1, below, provides a summary of the anticipated impacts and feasibility of the alternative and the proposed project. A complete discussion of the No Project Alternative is provided below.

### 5.3.3 Alternative 1: No Project Alternative

#### 5.3.3.1 Description

Consistent with Section 15126.6 of the *State CEQA Guidelines*, the No Project Alternative assumes no adoption of the proposed CAAP and continued implementation of the existing General Plan Safety Element (2002) instead of the updates of the proposed project. The existing General Plan Safety Element would continue to guide and regulate the City’s policies related to public safety and no planning or policy document would be adopted to provide strategies and actions to reduce the City’s GHG emissions, reach its GHG reduction targets and lessen the impacts of climate change on Long Beach. In addition, no CAAP Consistency Checklist would be implemented for future discretionary projects to utilize in lieu of a project-specific GHG emissions analysis to ensure consistency of future development with the City’s GHG emissions reductions goals. Further, MM GHG-1 from the 2019 Certified Program EIR would not be implemented as required.

**Table 5.1: Summary of Project and Alternatives**

Alternative	Description	Basis for Selection and Summary Analysis
Proposed Project	<ul style="list-style-type: none"> <li>● Approximately 50-square-mile planning area</li> <li>● Adoption of the proposed CAAP</li> <li>● Implementation of the proposed text Amendments to the Safety Element</li> </ul>	<ul style="list-style-type: none"> <li>● Meets all Project Objectives</li> <li>● Requires General Plan Update</li> <li>● No significant and unavoidable project-related impacts</li> <li>● Consistent with all Project Objectives</li> <li>● Refer to Chapters 3.0 and 4.0 of this Draft SEIR</li> </ul>
Alternative 1: No Project Alternative	<ul style="list-style-type: none"> <li>● No adoption of the proposed CAAP and no implementation of the CAAP Consistency Checklist</li> <li>● Continued requirement of project-specific GHG emissions analysis</li> <li>● Continuation of the City’s existing General Plan Safety Element (2002)</li> </ul>	<ul style="list-style-type: none"> <li>● Consideration of this alternative is required by CEQA</li> <li>● Does not require General Plan Update</li> <li>● Inconsistent with State law</li> <li>● Inconsistent with required implementation of Mitigation Measure GHG-1 from the 2019 Certified Program EIR</li> <li>● Inconsistent with all of the Project Objectives</li> </ul>

**5.3.3.2 Environmental Analysis and Impacts**

**Aesthetics.** Under the No Project Alternative, impacts on scenic views or vistas, scenic resources, and existing visual character would be similar to those under the proposed project. The No Project Alternative would not include measures that would require rooftop solar or other energy efficiency measures for future discretionary projects; however, all future discretionary projects under the No Project Alternative would also require project-specific CEQA review to ensure impacts related to glare would be less than significant. In addition, the No Project Alternative would not require future discretionary projects to implement other measures related to building and energy efficiency, transportation improvements, or waste reduction in order to demonstrate consistency with the CAAP in-lieu of a project specific GHG analysis; however, all future discretionary projects would still require project-specific CEQA review to ensure impacts related to scenic vistas, scenic resources, or visual character would be less than significant.

**Air Quality.** The No Project Alternative would result in greater air pollution compared to the proposed project because it would not require future discretionary projects to implement the measures to support the Building and Energy, Transportation, or Waste Actions provided in the CAAP. In particular, the No Project Alternative would have greater non-renewable energy use, higher vehicle travel, and greater energy usage for waste disposal, which would all result in increases in associated criteria pollutant emissions. Under the No Project Alternative, the air quality benefits that would also be afforded through reducing GHG emissions would not be realized. Therefore, under the No Project Alternative, impacts on air quality would be greater than those of the proposed project.

**Agriculture and Forest Resources.** Under the No Project Alternative, impacts on agriculture and forestry resources would be the same as those under the proposed project. Similar to the proposed

project, the No Project Alternative would not result in any physical land use changes or specific physical improvements, and no impacts would occur to agriculture and forestry resources.

**Biological Resources.** Under the No Project Alternative, impacts on biological resources would be the same as those under the proposed project. Similar to the proposed project, the No Project Alternative would not result in any physical land use changes or specific physical improvements, and no impacts would occur to biological resources.

**Cultural Resources.** Under the No Project Alternative, impacts on cultural resources would be the same as those under the proposed project. Similar to the proposed project, the No Project Alternative would not result in any physical land use changes or specific physical improvements, and no impacts would occur to cultural resources.

**Geology and Soils.** Under the No Project Alternative, impacts on geology and soils would be the same as those under the proposed project. Similar to the proposed project, the No Project Alternative would not result in any physical land use changes or specific physical improvements, and no impacts would occur to geology and soils.

**Energy.** The No Project Alternative would result in more inefficient energy use compared to the proposed project because it would not require future discretionary projects to implement the measures to support the Building and Energy, Transportation, or Waste Actions provided in the CAAP. In particular, the No Project Alternative would have greater non-renewable energy use and greater energy usage for waste disposal. Under the No Project Alternative, the energy efficiency benefits and additional renewable energy infrastructure that would also be afforded through the measures to support the CAAP Actions would not be realized. Therefore, under the No Project Alternative, impacts on energy would be greater than those of the proposed project.

**Greenhouse Gas Emissions.** The overall objective of the proposed project is to ensure that the City meets its GHG reduction targets by including policies and goals to guide future projects as well as providing specific measures for future discretionary projects to implement that demonstrate consistency with these goals. In addition, consistent with an objective of the project, the proposed project would comply with MM GHG-1 in the Certified General Plan Land Use and Urban Design Elements Program EIR (2019), which required the City to adopt a GHG Reduction Plan or CAAP. Without adoption of the CAAP and the associated measures for future projects, GHG emissions would be at least 40 percent higher by 2030 than under the proposed project. Therefore, the City would need to develop alternative methods for reducing GHG emissions within the City and quantifying those reductions in order to demonstrate progress towards achieving its GHG emissions reduction targets and the State GHG reduction goals under SB 32. In addition, without the proposed text amendments to the Safety Element, the City would not comply with SB 379 and incorporate climate adaptation and resiliency considerations in the City's overall General Plan to ensure safety and protection from climate change and sea level rise related to GHG emissions. Under the No Project Alternative, GHG emissions impacts would be greater than those of the proposed project.

**Hazards and Hazardous Materials.** Under the No Project Alternative, impacts on hazards and hazardous materials would be the same as those under the proposed project. Similar to the

proposed project, the No Project Alternative would not result in any physical land use changes or specific physical improvements, and no impacts would occur from hazards or hazardous materials.

**Hydrology and Water Quality.** Under the No Project Alternative, impacts on hydrology and water quality would be the same as those under the proposed project. Similar to the proposed project, the No Project Alternative would not result in any physical land use changes or specific physical improvements, and no impacts would occur to hydrology and water quality.

**Land Use.** The No Project Alternative would not result in impacts related to land use and would not conflict with existing land use policies, as the existing General Plan is the guiding land use document for development within the City. Therefore, the No Project Alternative would not interfere with any existing land use plans for the planning area. However, the proposed CAAP is included as a mitigation measure to the 2019 Certified Program EIR for the Land Use Element and Urban Design Elements to ensure future development accounted for by the City's Land Use Element would be developed in a manner that would meet the City's GHG reduction targets. Therefore, implementation of the Land Use Element without the adoption of the proposed CAAP would fail to implement MM GHG-1 of the 2019 Certified Program EIR and would conflict with the City's land use policies and goals associated with meeting its GHG reduction targets.

Land use impacts associated with the proposed project were determined to be less than significant. Under the No Project Alternative, impacts related to land use would be greater those identified for the proposed project, as outlined above.

**Noise.** The No Project Alternative would allow for noise regulation within the planning area to remain unchanged, consistent with the existing Noise Element and Noise Ordinance. Sources of noise within the planning area would remain substantially similar to existing conditions or incrementally increase as growth occurs, with the primary source remaining vehicle roadway noise. Similar to the proposed project, no physical development or changes to land use designations would occur under the No Project Alternative. However, without adoption of the proposed CAAP, measures to support CAAP Actions would not be required for future discretionary projects. These measures include energy efficiency improvements that would reduce stationary noise from energy generators and measures to reduce VMT that would also reduce vehicle-generated noise. Under the No Project Alternative, the noise reduction benefits that would be afforded through the measures to support the CAAP Actions would not be realized. Noise impacts associated with the proposed project were determined to be less than significant. Under the No Project Alternative, impacts related to noise would be similar to, although slightly greater than, those identified for the proposed project because measures to support CAAP Actions that would reduce noise would not be required for future discretionary projects.

**Population and Housing.** The No Project Alternative would not result in any physical land use changes or specific physical improvements. In addition, similar to the proposed project, all future discretionary projects, including the development of housing within the City would be reviewed under CEQA for consistency with the General Plan. However, under the No Project Alternative, the measures to support CAAP Actions would not be required for all future discretionary projects, as these measures were designed to support the goals and policies of the City's Land Use Element and

Housing Element. Therefore, while no development would occur under the No Project Alternative that would directly alter population and housing within the City, future development under the No Project Alternative would not be required to implement measures that support the City's adopted Land Use goals to meet the City's housing needs while reducing GHG emissions. Under the No Project Alternative, impacts related to population and housing would be similar; however, the benefits identified for the proposed project would not be realized.

**Public Services.** The No Project Alternative would not result in any physical land use changes or specific physical improvements. In addition, similar to the proposed project, all future discretionary projects would be reviewed under CEQA for consistency with the General Plan and would be subject to the City's adopted development impact fees. However, under the No Project Alternative, the measures to support CAAP Actions would not be required for all future discretionary projects, and these measures were designed to support the goals and policies of the City's Land Use Element. Therefore, while no development would occur under the No Project Alternative that would directly alter population and housing with the City, future development under the No Project Alternative would not be required to implement measures that support the City's adopted Land Use goals to address population growth and public service needs while reducing GHG emissions. Under the No Project Alternative, impacts related to public services would be similar; however, the benefits identified for the proposed project would not be realized.

**Recreation.** The No Project Alternative would not result in any physical land use changes or specific physical improvements. In addition, similar to the proposed project, all future discretionary projects would be reviewed under CEQA for consistency with the General Plan. However, under the No Project Alternative, the measures to support CAAP Actions would not be required for all future discretionary projects, as these measures were designed to support the goals and policies of the City's Open Space and Recreation Element (2002), to lessen the impacts of climate change on recreational amenities and include several pedestrian and bicycle improvements within the City. Therefore, while no development would occur under the No Project Alternative that would directly alter recreational resources or increase population resulting in the need for new recreational resources within the City, future development under the No Project Alternative would not be required to implement measures that support the provisions of additional pedestrian and bicycle facilities in the City. Under the No Project Alternative, impacts related to recreational resources would be similar to those identified for the proposed project; however, the benefits to recreational resources and reduction of GHG emissions under the proposed project would not be realized.

**Transportation.** The No Project Alternative would allow for increased traffic volumes on some streets due to the growth envisioned under the recently adopted LUE. Similar to the proposed project, no physical development or changes to land use designations would occur under the No Project Alternative. Therefore, the No Project Alternative would not result in impacts related to transportation. The No Project Alternative would not conflict with the General Plan Mobility Element and all future discretionary projects would be subject to review under CEQA for consistency with the General Plan. Since the No Project Alternative would not result in transportation impacts, it would not conflict with the Los Angeles County Congestion Management Program (CMP). Therefore, the No Project Alternative would not conflict with existing transportation programs, plans, ordinances, or policies addressing the circulation system, similar to the proposed project.

However, without adoption of the proposed CAAP, measures to support CAAP Actions would not be required for future discretionary projects. These measures include policies to encourage development along transit corridors and pedestrian and bicycle improvements in order to reduce VMT. Under the No Project Alternative, the VMT reduction benefits that would also not be afforded through the measures to support the CAAP Actions, which would not be realized. Transportation impacts associated with the proposed project were determined to be less than significant. Under the No Project Alternative, impacts related to transportation would be similar to, although slightly greater than, those identified for the proposed project as measures to support CAAP Actions that would reduce VMT would not be required for future discretionary projects.

**Tribal Cultural Resources.** Under the No Project Alternative, impacts on tribal cultural resources would be the same as those under the proposed project. Similar to the proposed project, the No Project Alternative would not result in any physical land use changes or specific physical improvements, and no impacts would occur to tribal cultural resources.

**Utilities and Service Systems.** The No Project Alternative would allow for the expansion of utilities and service systems due to the growth envisioned under the adopted LUE. Similar to the proposed project, no physical development or changes to land use designations would occur under the No Project Alternative. Therefore, the No Project Alternative would not result in impacts related to utilities and service systems. The No Project Alternative would not conflict with the General Plan land use designations and development assumptions, and all future discretionary projects would be subject to review under CEQA for consistency with the General Plan. However, without adoption of the proposed CAAP, measures to support CAAP Actions would not be required for future discretionary projects. These measures include measures to reduce solid waste and install energy efficient infrastructure. Under the No Project Alternative, the solid waste reduction and energy efficient benefits that would also be afforded through the measures to support the CAAP Actions would not be realized. Utilities and service system impacts associated with the proposed project were determined to be less than significant. Under the No Project Alternative, impacts related to utilities and service systems would be similar to, although slightly greater than, those identified for the proposed project as measures to support CAAP Actions that would reduce solid waste and promote energy efficiency would not be required for future discretionary projects.

### 5.3.3.3 Project Objectives

The No Project Alternative would not achieve any of the seven Project Objectives. Because the No Project Alternative would not include the various strategies and policies proposed by the CAAP and text amendments to the Safety Element, this alternative would not achieve any of the following Project Objectives: Provide a goal post against which the cumulative progress of the City's GHG reduction actions over time can be evaluated (Project Objective 1); comply with requirements of the Global Covenant of Mayors, to which the City of Long of Beach has been a signatory since 2015 (Project Objective 2); demonstrate the City's commitment to global efforts to address climate change (Project Objective 3); illustrate the relationship between the City's reduction target and the State's own reduction goals for compliance with State mandates for cities related to GHG reduction (Project Objective 4); demonstrate a level of GHG emissions below which Long Beach would have less than cumulatively considerable GHG impacts for future environmental review projects (Project

Objective 5); create a plan that will help Long Beach realize the following: low carbon, climate resilient buildings and neighborhoods; safe and adaptable infrastructure; protected and enhanced natural systems; a healthy, resilient and ready population; and residents and businesses with minimized carbon footprint (Project Objective 6); nor would it incorporate climate adaptation and resiliency considerations and strategies consistent with the CAAP in the General Plan Safety Element in order to ensure the City’s goals and policies related to public safety recognize and address climate impacts related to extreme heat, drought, and sea level rise occurrences (Project Objective 7). Therefore, as compared to the proposed project, the No Project Alternative would not meet any of the Project Objectives.

### 5.3.4 Identification of Environmentally Superior Alternative

CEQA requires the identification of an Environmentally Superior Alternative. *State CEQA Guidelines* Section 15126.6(e)(2) states that if the No Project Alternative is the Environmentally Superior Alternative, then the EIR shall also identify an Environmentally Superior Alternative among the other alternatives. Table 5.2, below, provides, in summary format, a comparison of the level of impacts for the No Project Alternative to the proposed project.

**Table 5.2: Comparison of the Environmental Impacts of the Proposed Project to the No Project Alternative**

Environmental Topic	Proposed Project Level of Impacts	Alternative 1: No Project Alternative Impacts
Aesthetics	Less Than Significant Impact	Similar
Air Quality	Less Than Significant Impact	Similar, but slightly greater impacts
Energy	Less Than Significant Impact	Similar, but slightly greater impacts
Greenhouse Gas Emissions	Less Than Significant Impact	Greater environmental impacts
Land Use and Planning	Less Than Significant Impact	Similar, but slightly greater impacts
Noise	Less Than Significant Impact	Similar
Population and Housing	Less Than Significant Impact	Similar
Public Services	Less Than Significant Impact	Similar
Recreation	Less Than Significant Impact	Similar
Transportation	Less Than Significant Impact	Similar, but slightly greater impacts
Tribal Cultural Resources	Less Than Significant Impact	Similar
Utilities and Service Systems	Less Than Significant Impact	Similar
<b>Attainment of Project Objectives</b>	<b>Meets all of the Project Objectives</b>	<b>Meets none of the Project Objectives</b>

The No Project Alternative has slightly greater land use and planning impacts than the proposed project because the CAAP would not be adopted pursuant to MM GHG-1 of the 2019 Certified Program EIR and updates to the Safety Element to bring the Safety Element up to date and into compliance with a number of State laws including relating to climate change would not be adopted. The No Project Alternative would also result in similar but slightly greater environmental impacts related to air quality, energy, and transportation as the proposed CAAP would not be adopted which would provide strategies and policies for future discretionary projects that would reduce the potential effects of climate change including reducing energy consumption, air pollutant emissions, and VMT. The No Project Alternative would result in greater environmental impacts related to GHG

emissions as the proposed CAAP would not be adopted and the overall goal of the CAAP is to provide a framework to reduce the City's GHG footprint and achieve its GHG reduction targets. Overall, the No Project Alternative would not lessen impacts as compared to the proposed project. Additionally, the No Project Alternative would not achieve any of the seven Project Objectives.

With the exception of the No Project Alternative, the Environmentally Superior Alternative would be the proposed project, which results in fewer impacts than the No Project Alternative and meets all seven of the Project Objectives.

## 6.0 OTHER CEQA CONSIDERATIONS

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines (*State CEQA Guidelines*) requires that all phases of a project must be considered when evaluating its impact on the environment, including: planning, acquisition, development, and operation. This chapter discusses these CEQA considerations associated with the implementation of the proposed Climate Action and Adaptation Plan (CAAP) and Safety Element Update Project (proposed project). According to Section 15126 of the *State CEQA Guidelines*, an Environmental Impact Report (EIR) must include the following as part of its analysis, as addressed in this chapter:

1. Significant environmental effects of the proposed project (Section 6.1, Significant Environmental Effects);
2. Significant environmental effects due to wasteful, inefficient, or unnecessary consumption use of energy, or wasteful use of energy resources (Section 6.2, Energy Impacts);
3. Significant environmental effects which cannot be avoided if the proposed project is implemented (Section 6.3, Significant and Unavoidable Impacts);
4. Significant irreversible environmental changes which would be involved in the proposed project should it be implemented (Section 6.4, Significant Irreversible Environmental Changes); and
5. Growth-inducing impacts of the proposed project (Section 6.5, Growth-Inducing Impacts).

In addition, an EIR must address Alternatives to the proposed project and list mitigation measures proposed to minimize the significant effects of the proposed project. Alternatives are fully discussed in Chapter 5.0, Alternatives, of this SEIR. No mitigation measures were required, as described throughout the Chapter 4.0 sections of this SEIR.

### 6.1 SIGNIFICANT ENVIRONMENTAL EFFECTS

Section 15126.2(a) of the *State CEQA Guidelines* requires that an EIR identify and focus on the significant effects of the proposed project on the environment. Specifically, Section 15126.2(a) states that an EIR shall:

“Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause or risk exacerbating by bringing development and people into the area affected.”

The proposed project involves both the adoption of the Climate Action and Adaptation Plan (CAAP) and the Safety Element Update. The CAAP is a comprehensive planning document outlining the City's proposed approach both to address climate impacts on Long Beach and to reduce Long Beach's impact on the climate by reducing greenhouse gas (GHG) emissions. The CAAP was a mitigation measure for the Long Beach Land Use Element (LUE) and Urban Design Element (UDE) Program EIR (2019 Certified Program EIR). The GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions, and the proposed CAAP would not alter the land uses designations or development assumptions in the 2019 Certified Program EIR.

The Safety Element Update will bring the Safety Element into compliance with a number of State laws including relating to climate change and resiliency. The proposed project is considered a policy/planning action and adoption of the proposed project does not constitute approval or entitlement for any physical improvements or development.

The proposed project would not include any physical changes, alterations to ecological systems, or induce changes in population distribution, population concentration, and the human use of the land. The proposed project would not result in or exacerbate any significant environmental effects by bringing development and people into the area affected because the project does not regulate land use. The proposed project would not include or facilitate any new physical improvements or development. Therefore, implementation of the proposed project would not create potential short-term or long-term direct or indirect significant effects.

## 6.2 ENERGY IMPACTS

According to Section 15126.2(b) of the *State CEQA Guidelines*, “[i]f analysis of the project’s energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption use of energy, or wasteful use of energy resources, the EIR shall mitigate that energy use.”

The proposed project involves the adoption of the CAAP and the Safety Element Update, which are considered policy/planning actions and do not include or entitle any physical improvements or development that would require energy consumption. As described in Chapter 4.3, Energy, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources. Therefore, no energy impacts would occur, and no mitigation is required.

## 6.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15126.2(c) of the *State CEQA Guidelines* requires that an EIR describe any significant impacts that cannot be avoided. Specifically, Section 15126.2(c) states that an EIR shall:

“Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons

why the project is being proposed, notwithstanding their effect, should be described.”

Chapter 1.0, Executive Summary, of this Draft SEIR contains a detailed summary that identifies the proposed project’s environmental impacts as compared to existing conditions, proposed mitigation measures, and the level of significance of any impacts after mitigation. All environmental issues analyzed in this Draft SEIR were determined to result in less than significant impacts. Therefore, as determined in the contents of this Draft SEIR, implementation of the proposed project would not result in any significant and unavoidable adverse impacts. Further, no mitigation measures are required.

#### **6.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES**

Section 15126.2 (d) of the *State CEQA Guidelines* requires that an EIR consider and discuss significant irreversible changes that would be caused by implementation of the proposed project. Specifically, Section 15126.2 (d) states:

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

Generally, a project would result in significant irreversible environmental changes if the proposed consumption of resources is not justified, if the project would involve a large commitment of nonrenewable resources, or if the project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

The proposed CAAP and Safety Element Update are considered planning/policy actions and do not include or entitle any physical improvements or development. Therefore, the proposed project would not result in an irreversible commitment of limited, slowly renewable, or nonrenewable resources, as the proposed project would not, in itself, result in any direct physical improvements or development. Therefore, the proposed project would not result in a commitment of limited, slowly renewable, and nonrenewable resources, and thus, would not result in significant irreversible changes.

#### **6.5 GROWTH-INDUCING IMPACTS**

Sections 15126(d) and 15126.2(e) of the *State CEQA Guidelines* require that an EIR analyze growth-inducing impacts and state that an EIR should discuss the ways in which the proposed project could foster economic or population growth or construction of additional housing, either directly or indirectly, in the surrounding environment. *State CEQA Guidelines* Section 15126.2(d) also requires a discussion of the characteristics of projects that may encourage and facilitate other activities that

could significantly affect the environment, either individually or cumulatively. A project that meets any of these criteria may be considered growth-inducing. The potential growth-inducing impacts associated with the proposed project are discussed below.

It should be noted that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment (*State CEQA Guidelines*, Section 15126.2(d)). This issue is presented to provide additional information on ways in which this project could contribute to significant changes in the environment beyond the direct consequences of implementing the proposed project as described in earlier sections of this Draft SEIR.

Approval of the proposed project is considered a planning/policy action and does not include or entitle any physical improvements or development that would induce population, housing, or employment growth. Further, the GHG reduction goals of the CAAP were informed by the development assumptions of the adopted LUE and the General Plan buildout conditions, and the proposed CAAP would not alter the land uses designations or development assumptions in the 2019 Certified Program EIR.

Implementation of the proposed project would not remove obstacles to growth or foster growth because the CAAP and Safety Element Update do not facilitate or entitle physical development. Additionally, the proposed project does not include any policies or regulations which could encourage and facilitate other activities that could significantly affect the environment; the effects of the CAAP would, in contrast, be beneficial to the environment. For the reasons stated above, the proposed project is not considered to be growth-inducing, and therefore, the proposed project would not result in any growth-inducing impacts.

## 7.0 LIST OF PREPARERS AND PERSONS CONSULTED

### 7.1 CITY OF LONG BEACH

The following individuals from the City of Long Beach were involved in the preparation of the Draft Subsequent Environmental Impact Report (SEIR):

- Patricia Diefenderfer, AICP, Planning Bureau Manager, Development Services Department
- Alison Spindler-Ruiz, AICP, Advance Planning Officer, Development Services Department
- Jennifer Ly, Planner, Development Services Department

### 7.2 CONSULTANT TEAM

The following firms were involved in the preparation of the Draft SEIR and/or the proposed Climate Action and Adaptation Plan (CAAP). The nature of their involvement is summarized below.

#### 7.2.1 LSA Associates, Inc.

The following individuals were involved in the preparation of the Draft SEIR:

- Ashley Davis, Principal in Charge
- Christina Maxwell, Project Manager/Senior Environmental Planner
- Cara Carlucci, Senior Planner
- Marlene Watanabe, Assistant Environmental Planner
- Lauren Johnson, Technical Editor
- Chantik Virgil, Senior Word Processor

#### 7.2.2 AECOM

The following individuals were involved in the preparation of the CAAP:

- Claire Bonham Carter, Vice President, Director of Sustainable Development
- Joshua Lathan, Senior Associate, City Climate Action Plan Lead

#### 7.2.3 ESA

The following individuals were involved in the preparation of the CAAP Technical Support Memorandum and the CAAP Consistency Checklist:

- Brian Schuster, Senior Managing Associate
- Jeff Caton, Principal Associate

### 7.3 PERSONS CONSULTED

The following individuals were consulted during the preparation of this Draft SEIR:

- Charles Alvarez, Gabrielino-Tongva Tribe
- Linda Candelaria, Gabrielino-Tongva Tribe

- Robert Dorame, Gabrielino-Tongva Indians of California Tribal Council
- Sandonne Goad, Gabrielino/Tongva Nation
- Anthony Morales, Gabrielino/Tongva San Gabriel Band of Mission Indians
- Andrew Salas, Gabrielino Band of Mission Indians – Kizh Nation
- Michael Mirelez, Torres Martinez Desert Cahuilla Indians
- Joseph Ontiveros, Soboba Band of Luiseno Indians

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