APPENDIX D

CLIMATE ACTION AND ADAPTATION PLAN CONSISTENCY REVIEW CHECKLIST AND TECHNICAL SUPPORT DOCUMENTATION

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LONG BEACH DEVELOPMENT SERVICES | PLANNING BUREAU

Climate Action + Adaptation Plan Consistency Review Checklist

Purpose of the Climate Action + Adaptation Plan Consistency Review Checklist

In November 2020, the City of Long Beach adopted the Climate Action + Adaptation Plan (CAAP), which is a is a comprehensive planning document outlining the City's proposed approach both to address climate impacts on the city and to reduce the City's impact on the climate by reducing greenhouse gas (GHG) emissions.

The CAAP includes 21 priority GHG emission reduction "Mitigation Actions"[1] that shall be implemented for the City to achieve its proportional share of State GHG emission reductions for the near-term target year 2030 (referred to herein as *CAAP Actions*). These actions are organized into three sectors: 1) Building Energy; 2) Waste; and 3) Transportation. The CAAP also includes 40 "Adaptation Actions" that are identified 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.[2] These actions are organized into four climate impacts: 1) Extreme Heat; 2) Air Quality; 3) Drought; and 4) Sea level rise and flooding.

The purpose of the Climate Action + Adaptation Plan Consistency Review Checklist (referred to herein as the *CAAP Checklist*) is to:

1. Require projects to implement relevant GHG emission reduction actions from the CAAP.

2. Require new development projects to implement relevant Adaptation Actions from the CAAP.

3. Provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).

The CAAP will also help the City comply with various local, regional, state, and federal regulations to significantly reduce GHG emissions. The City is obligated under CEQA, Assembly Bill 32 (The California Global Warming Solutions Act of 2006), Senate Bill (SB) 375 (The Sustainable Communities and Climate Protection Act of 2008), and various California Executive

[1] It should be noted that the CAAP's "mitigation actions" are not mitigation measures as defined by CEQA; they are actions to "mitigate" GHG emissions. This document refers to these as "CAAP Actions" throughout.

[2] Adaptation actions were developed based on the 2018 Long Beach Climate Stressors Review (Appendix D to the CAAP) and the Long Beach Climate Change Vulnerability Assessment Results (Appendix C to the CAAP).

Orders to do its part to reduce GHG emissions. Generally, statewide targets aim to reduce emissions to 1990 levels by 2020, to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of greenhouse gases. The CAAP itself, the CAAP Checklist (this document), and the adopted programmatic Environmental Impact Report (EIR) for the CAAP together meet all requirements of §15183.5(b) contained in the CEQA Guidelines. Accordingly, the CAAP represents the City of Long Beach's qualified climate action plan in compliance with CEQA.

CEQA Compliance and Background Information

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.[3] The City's 2030 target is established on a per service population (SP)[4] basis and aims to achieve emissions rates of 3.04 metric tons of carbon dioxide equivalent ($MTCO_2e$) per SP ($MTCO_2e$/SP). This compares to the City's 2030 business-as-usual forecast of 3.34 $MTCO_2e$/SP. Based on the City's SP growth estimates, the 2030 target emissions level is 1,984,272 $MTCO_2e$ per year. GHG reductions of approximately 192,659 $MTCO_2e$ will be required to achieve this target, or an overall reduction of approximately 0.3 $MTCO_2e$/SP.

As described in the CAAP, these GHG reductions will occur through a combination of City initiatives in various plans and policies and will provide reductions from both existing and new developments. The CAAP Checklist specifically applies to proposed discretionary projects that require environmental review pursuant to CEQA. Therefore, the CAAP Checklist is a critical implementation tool in the City's overall strategy to reduce GHG emissions. Implementation of applicable CAAP Actions in new development projects will help the City achieve incremental reductions toward its target.

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) 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 Environmental Impact Report (EIR) for the CAAP. In doing so; pursuant to 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

[3] City of Long Beach, July 2020, *City of Long Beach Climate Action and Adaptation Plan GHG Emissions Reduction Target Options Memo #3*.

[4] Service population = total population plus employment.

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).[5]

This CAAP Checklist 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 §15183.5(b)(2)) of the CEQA Guidelines.

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. 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.

Projects that are not consistent with the CAAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this CAAP Checklist to the extent feasible, as defined by CEQA and subject to the City's discretion.[6] Cumulative GHG impacts would be significant for any project that is not consistent with the CAAP.

As required by CEQA Guidelines Section 15183.5(b)(1)(E), the City will monitor strategy implementation and make updates, as necessary, to maintain an appropriate trajectory to the 2030 GHG target. CAAP updates will occur approximately every 5 years and can be scheduled to align with other City milestones, such as General Plan Element updates or budgetary cycles. If regular monitoring shows the CAAP is on track toward the GHG target, then CAAP updates may not be necessary. The City will also develop a comprehensive CAAP update following the current 2030 target year to provide greater analysis of the actions and implementation steps necessary to achieve the City's 2045 carbon neutrality goal. The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAAP or local, State, or federal law.

Attachment A, *Climate Action + Adaptation Plan Consistency Review Checklist: Technical Support Documentation*, provides the quantitative basis for the CAAP Action consistency requirements. This document demonstrates how, based on substantial evidence, implementing these requirements on a project-by-project basis will collectively achieve the CAAP's target

5 Association of Environmental Professionals, 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, available at https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf.

6 CEQA Guidelines Section 21061.1 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."

emissions level for new development, as required by CEQA Guidelines Section 15183.5(b)(1)(D).

CAAP Checklist Submittal Requirements

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 of State) funding, proposed within the City limits. The CAAP Checklist is designed to assist the project applicant in identifying the minimum GHG emission reduction actions and other applicable sustainability-focused requirements specific to a proposed project or plan. However, it may be necessary to supplement the completed CAAP Checklist with supporting materials, calculations, or certifications to demonstrate compliance with the CAAP Actions and other applicable sustainability-focused requirements. The CAAP Checklist will be included in the respective project or plan conditions of approval.

Consistency Checklist Applicability

The CAAP Checklist is only required for discretionary projects[7] that are subject to and not exempt from CEQA. Projects that are exempt from CEQA are deemed to be consistent with the CAAP, and no further review is necessary, with the exception of the Class 32 "In-Fill Development Projects" categorical exemption (CEQA Guidelines Section 15332), for which Projects are required to demonstrate consistency with the CAAP through this Consistency Review Checklist.

Instructions for Consistency Checklist

Project applicants shall complete the following steps to demonstrate conformance with the City of Long Beach Climate Action + Adaptation Plan for the proposed project.

Step 1. Demonstrate consistency with the City's General Plan (Table 1)

Step 2. Determine if project screens out of CAAP Action consistency (Table 1)

Step 3. Demonstrate consistency with the CAAP GHG Emission Reduction Actions (Table 1)

Step 4. Identify alternative project emission reduction measures and additional GHG reductions (Table 2)

Step 5. Demonstrate consistency with the CAAP Adaptation Actions (Table 3)

All projects must complete ***Step 1.*** *General Plan Consistency*, ***Step 2.*** *CAAP Action Consistency Screening*, ***Step 3.*** *CAAP Action Consistency Checklist*, and ***Step 5.*** *Adaptation Action*

7 In this context a project is any action that meets the definition of a "Project" in Section 15378 of the State CEQA Guidelines.

Consistency Checklist. Projects that propose alternative GHG emission reduction measures must also complete ***Step 4.*** *Alternative Project Measures and Additional GHG Reductions*.

The following process, illustrated in **Figure 1**, explains how to demonstrate a plan/project's consistency with the CAAP's GHG emissions reduction actions (*CAAP Actions*) and the CAAP's *Adaptation Actions* and, thereby, tier from the adopted EIR for the CAAP.

Climate Action + Adaptation Plan Consistency Review Checklist

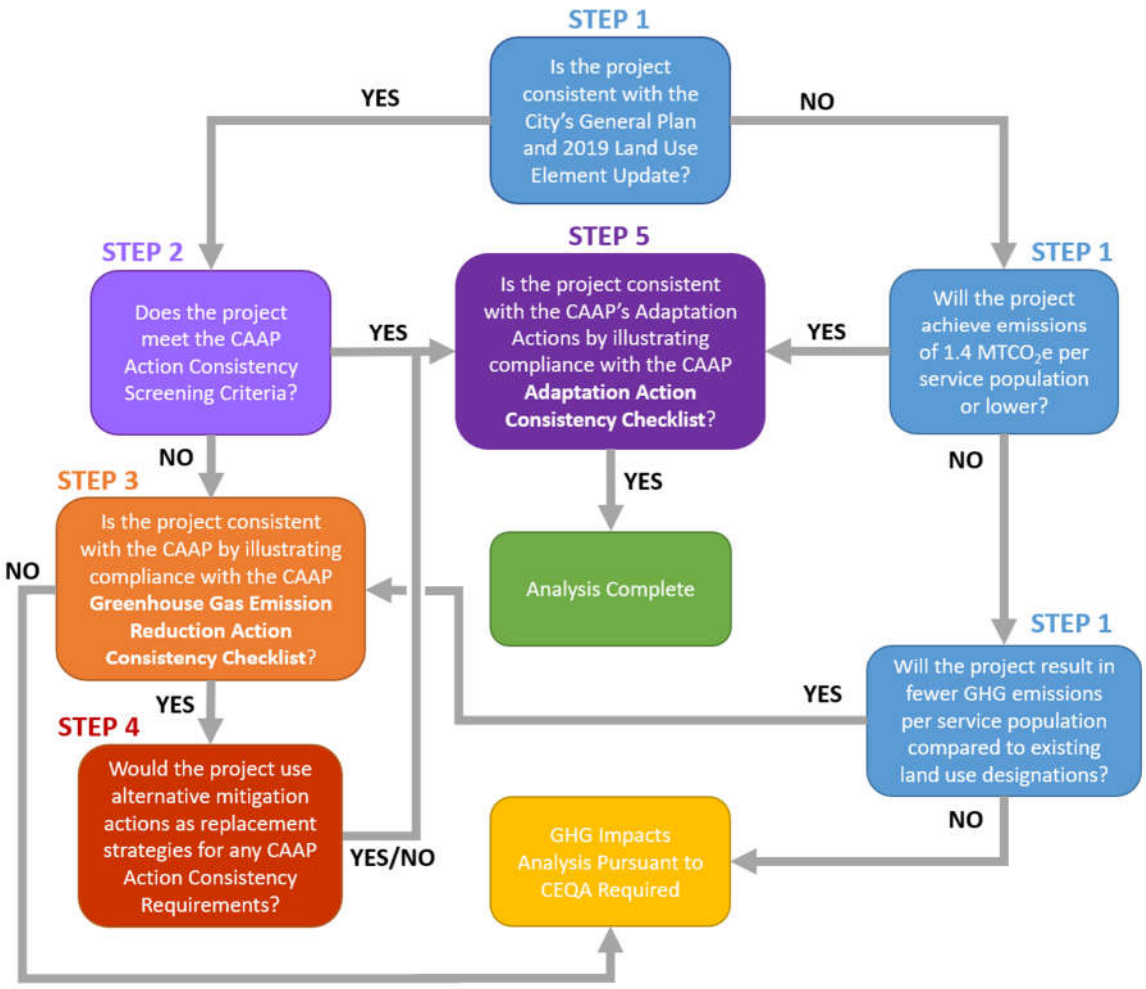

Figure 1
Determining Consistency with the City's Climate Action + Adaptation Plan

Step 1: Demonstrate consistency with the City's General Plan

All projects must demonstrate consistency with the City's General Plan and the existing land use designation of the 2019 Land Use Element (LUE). Alternatively, if a project is not consistent with the land use designation of the 2019 LUE, the project must identify an alternative compliance mechanism. Complete the *General Plan and 2019 Land Use Element Consistency* section of **Table 1** *General Plan and CAAP Action Consistency Checklist* below.

The process for determining general plan consistency (included in Table 1) is as follows:

1. Is the proposed project consistent with the existing land use designation of the 2019 Land Use Element? If yes, move to **Step 2** below. If no:

2. Does the project achieve emissions of 1.4 $MTCO_2e$ per service population[8] or less? If yes, the project is considered consistent with the CAAP and the analysis is complete (no project-specific GHG impact analysis would be required). If not:

3. Does the project result in fewer GHG emissions per service population than the future no-project development based on existing land use designations at the project site? If yes, move to **Step 2** below. If no, the proposed project may not tier from the CAAP's EIR and must prepare a comprehensive project-specific analysis of GHG emissions and impacts and incorporate the measures in this Checklist to the extent feasible.

If the project is not consistent with the existing land use designation of the 2019 LUE (#1 above), the applicant must submit a comprehensive quantitative project-specific analysis of all GHG emissions, consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development, to demonstrate that the alternative compliance mechanisms are met (#2, #3, and #4 above).

Please see Attachment A, *Climate Action + Adaptation Plan Consistency Review Checklist: Technical Support Documentation* for additional discussion.

Step 2: Determine if project screens out of CAAP Action consistency

Certain projects may screen out of the CAAP Action Consistency Checklist if they meet certain criteria. These criteria are designed to ensure high efficiency and low GHG emissions and describe projects that would generally be consistent with the CAAP's GHG emission reduction actions (CAAP Actions) for new development. Complete the *CAAP Action Screening Criteria* section of **Table 1** below.

[8] The Service Population for a project is the project's total anticipated residential population plus total anticipated employment provided by the project. For example, if a project would construct 100 housing units at an average occupancy of 2.5 people per unit, the total population would be 250; if the project would support 50 new jobs, the project's service population would therefore be 250 + 50 = 300.

1. If the project would achieve emissions of 1.4 $MTCO_2e$ per service population or less, the project is considered consistent with the CAAP Actions and the analysis is complete (no project-specific GHG analysis would be required).

Additionally, projects may skip completion of the *Transportation* subsection of the *CAAP Action Screening Criteria* section of Table 1 below if they meet one of the following criteria:

1. Located in a state-defined Transit Priority Area or High Quality Transit Area (HQTA)

2. Includes local-serving retail (e.g., grocery stores, pharmacies, or restaurants) less than 50,000 square feet.

3. Includes 100% affordable housing (excluding manager's units)

4. Would result in fewer than 110 daily trips per day.

If the project meets one of these criteria, please complete the *Building Energy* and *Waste* sections of the CAAP Checklist.

All projects that meet these screening criteria for CAP Action Consistency must still complete ***Step 3.*** *CAAP Adaptation Action Consistency*, as provided in Table 3.

Step 3: Demonstrate consistency with CAAP GHG Emission Reduction Actions

Table 1 identifies the CAAP Action consistency requirements for projects. Projects must demonstrate consistency with the CAAP Action requirements listed in Table 1 or document why the strategies are not applicable or are infeasible.[9] The corresponding CAAP Actions are indicated in the table to provide additional context. The full text of the GHG emission reduction actions are provided in Attachment A, *Climate Action + Adaptation Plan Consistency Review Checklist: Technical Support Documentation*.

All applicants shall complete the following steps for the *Building Energy, Waste*, and *Transportation* sections of **Table 1** below:

1. Review the project consistency options described in the column titled "*CAAP Action Consistency Requirement*".

2. Use the check boxes in the column titled "Project Consistency" to indicate if the "Project Complies," the requirement is "Not Applicable," the "Project Does Not Comply," or if there is an "Alternative Measure Proposed."

3. Provide a qualitative analysis of the proposed project's compliance with the CAAP Action requirements in the column titled "Description of Project Measure(s) / Documentation of Compliance." This will be the basis for CEQA analysis to demonstrate compliance with the CAAP and by extension, with SB 32. The qualitative analysis should provide:

[9] Please note that the CAAP Action requirements are not mitigation measures as defined by CEQA.

a. A description of which consistency options are included as part of the proposed project, or;

b. A description of why the consistency requirement is not applicable to the proposed project, or;

c. A description of why the consistency options are infeasible. If applicants select 'Project Does Not Comply' or 'Alternative Measure Proposed', they must complete Table 2 to document what alternative project measures will be implemented to achieve a similar level of GHG reduction and how those reduction estimates were calculated.

The CAAP Action consistency requirements are listed as either "Tier 1" or "Tier 2." These two levels are defined as follows:

Tier 1: Required for all discretionary projects to demonstrate consistency with the CAAP.

Tier 2: Encouraged for all discretionary projects to the maximum extent feasible. Although these are not required, projects are strongly encouraged to implement as many of these as feasible.

Attachment A, *Climate Action + Adaptation Plan Consistency Review Checklist: Technical Support Documentation*, provides the quantitative basis for the CAAP Action consistency requirements.

Step 4: Identify Alternative Project Emission Reduction Measures and Additional GHG Reductions

Projects that propose alternative GHG emission reduction measures to those identified in Table 1 or propose to include additional GHG emission reduction measures beyond those described in Table 1 shall provide a summary explanation of the proposed measures and demonstrate GHG reductions achievable though the proposed measures.[10] Documentation for these alternative or additional project measures shall be documented in **Table 2** *Applicant Proposed Alternative Project Emission Reduction Measures*. Any applicants who select 'Project Does Not Comply' or 'Alternative Measure Proposed' in Table 1 must complete the following steps for Table 2.

1. In the column titled "Description of Alternative / Replacement Measure" provide a qualitative description of what measure will be implemented, why it is proposed, and how it will reduce GHG emissions.

2. In the column titled "Description of GHG Reduction Estimate" demonstrate how the alternative project measure would achieve the same or greater level of GHG emission reductions as the CAAP Action requirement that it replaces. Documentation and calculation files must be attached separately.

[10] Please note that the alternative GHG emission reduction measures are not mitigation measures as defined by CEQA.

In the column titled "Proposed Measure Implementation" identify how the measure will be implemented: incorporated as part of the project design or as an additional measure that is not part of the project (e.g., an offsite emission reduction program sponsored by the applicant).

Carbon offset credits are not permitted to be used as alternative project emission reduction measures.

Step 5: Demonstrate consistency with the CAAP Adaptation Actions

Table 3 *CAAP Adaptation Action Consistency Checklist* identifies the CAAP Adaptation Action consistency requirements for projects. Projects must demonstrate consistency with the CAAP Adaptation Action requirements listed in Table 3 or document why the strategies are not applicable or are infeasible. The corresponding CAAP Adaptation Actions are indicated in the table to provide additional context. The full text of the adaptation actions are provided in Attachment A, *Climate Action + Adaptation Plan Consistency Review Checklist: Technical Support Documentation*.

All applicants shall complete the following steps for **Table 2** below:

1. Review the project consistency options described in the column titled "*CAAP Adaptation Action Consistency Requirement*".

2. Use the check boxes in the column titled "Project Consistency" to indicate if the "Project Complies," the requirement is "Not Applicable," or the "Project Does Not Comply."

3. Provide a qualitative analysis of the proposed project's compliance with the CAAP Adaptation Action requirements in the column titled "Description of Project Measure(s) / Documentation of Compliance." This will be the basis for CEQA analysis to demonstrate compliance with the CAAP and by extension SB 32. The qualitative analysis should provide:

    a. A description of which consistency requirements are included as part of the proposed project, or;

    b. A description of why the consistency requirements are not applicable to the proposed project, or;

    c. A description of why the consistency requirements are infeasible.

CAAP Consistency Review Checklist

Table 1 *General Plan and CAAP Action Consistency Checklist* allows the applicant to demonstrate compliance with the City's General Plan and the CAAP's GHG emission reduction actions. This table addresses ***Step 1.*** *General Plan Consistency*, ***Step 2.*** *CAAP Action Consistency Screening*, and ***Step 3.*** *CAAP Action Consistency Checklist*. All projects are required to complete this checklist.

Table 2 *Applicant Proposed Alternative Project Emission Reduction Measure* allows the project applicant to document alternative GHG emission reduction measures utilized to demonstrate compliance with the Table 1 CAAP Action consistency requirements. This table addresses ***Step 4.*** *Identify Alternative Project Emission Reduction Measures and Additional GHG Reductions*. Only projects proposing to use alternative GHG emission reduction measures are required to complete this checklist.

Table 3 *CAAP Adaptation Action Consistency Checklist* allows the applicant to demonstrate compliance with the CAAP's Adaptation Actions. This table addresses ***Step 5.*** *Demonstrate consistency with the CAAP Adaptation Actions*. All projects are required to complete this checklist.

TABLE 1
CAAP GREENHOUSE GAS EMISSION REDUCTION ACTION CONSISTENCY CHECKLIST

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
STEP 1: General Plan and 2019 Land Use Element Consistency		
1. The Project is Consistent with the City's General Plan Land Use Element The growth projections outlined in the 2019 General Plan Land Use Element were used in the City's CAAP to estimate citywide GHG emissions over time. Therefore, new development projects must be consistent with the Land Use Element to be consistent with the CAAP. In order for City staff to determine a project's consistency with the Land Use Element, please answer the following question and provide explanation with supporting documentation. Is the proposed project consistent with the existing land use designation of the 2019 Land Use Element? If "Yes," proceed to the "CAAP Action Consistency" section below. If "No," proceed to Item 2.	*Describe how the project is consistent with the City's 2019 General Plan Land Use Element. Provide additional supporting documentation as an attachment as needed.* *OR,* *Explain why the project is not consistent with the City's 2019 General Plan Land Use Element, and whether the project would include a general plan amendment.*	☐ Yes ☐ No
2. The Project Achieves emissions of 1.4 $MTCO_2e$ per service population or less Does the project achieve emissions of 1.4 $MTCO_2e$ per service population or less? The project must conduct a comprehensive quantitative project-specific analysis of all GHG emissions, consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development, to demonstrate that the project achieves this efficiency level. If "Yes," the project is consistent with the CAAP and no additional analysis is needed (no project-specific GHG impact analysis would be required). If "No," proceed to Item 3.	*If "Yes", attach to this checklist the estimated project emissions and emissions per service population. If the proposed project is determined to result in GHG emissions less than 1.4 $MTCO_2e$ per service population, the project is consistent with the CAAP and the analysis is complete (no project-specific GHG impact analysis would be required). Provide supporting calculation files and documentation for this analysis.* *OR,* *Explain why the project would not achieve GHG emissions less than 1.4 $MTCO_2e$ per service population. Provide supporting calculation files and documentation for this analysis.*	☐ Yes ☐ No
3. I Project Results in Fewer GHG Emissions per Service Population Compared to Existing Land Use Designations The project must achieve one of the following options. 1. Does the project result in fewer GHG emissions per service population than the future no-project development based on existing land use designations at the project site? The	*If "Yes" to number 1, attach to this checklist the estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation. If the proposed project is determined to result in fewer GHG emissions per service population than the existing designations would produce, proceed to the "CAAP Action Consistency" section of this*	☐ Yes ☐ No

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
applicant must conduct a comprehensive project-specific analysis of all GHG emissions for both the project and the future no-project development, consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development, to demonstrate that the project achieves this emissions level. If "Yes," proceed to the "CAAP Action Consistency" section below. If "No," proceed to number 2. 2. If there isn't a project-specific GHG emissions analysis available, then the project would likely result in fewer GHG emissions per service population than would existing land use designations at the project site by incorporating key land use design elements. Would the project implement at least <u>one</u> of the following elements? a. The project would result in a higher density of housing and / or jobs located within 0.5 miles of a transit station than was than was contemplated in the General Plan. b. The project includes a mix of uses (i.e., residential, retail, commercial) and is located in a Transit Priority Area or a High Quality Transit Area. c. The project includes more affordable housing units than was contemplated in the General Plan and is located within 0.5 miles of a transit station. d. The project includes local-serving retail less than 50,000 square feet. If "Yes," proceed to the "CAAP Action Consistency" section below. ***<u>If "No," the proposed project may not tier from this document</u> and must prepare a comprehensive project-specific analysis of GHG emissions and impacts and incorporate the measures in the CAAP Checklist to the extent feasible.***	*checklist. Provide supporting calculation files and documentation for this analysis.* *OR,* *If "Yes" to number 2, describe how the project achieves one of the required elements. Provide supporting documentation.* *OR,* *If "No" to both number 1 and number 2, explain why the project would not achieve the same or lower GHG emissions per service population than the existing designations, and why the project does not achieve one of the required elements. Prepare a comprehensive project-specific analysis of GHG emissions and impacts, pursuant to all CEQA guidelines and the City's CEQA approach and incorporate the measures in this Checklist to the extent feasible.*	
STEP 2: CAAP Action Screening Criteria		
Certain projects may screen out of the CAAP Checklist if they meet the following screening criteria: 1. Would the project achieve emissions of 1.4 $MTCO_2e$ per service population or less?	*If "Yes" to #1, attach to this checklist the estimated project emissions and emissions per service population. If the proposed project is determined to result in GHG emissions less than 1.4 $MTCO_2e$ per service population, the project is consistent with the CAAP and the analysis is complete (no project-*	☐ Project Complies ☐ Not Applicable

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
If "Yes", the project is consistent with the CAAP and no additional analysis is needed (no project-specific GHG impact analysis would be required). If "No," proceed to *Building Energy* below.	*specific GHG impact analysis would be required). Provide supporting calculation files and documentation for this analysis.* *OR,* Complete *the "Building Energy," "Transportation," and Waste"* sections of this checklist.	☐ Project Does Not Comply
STEP 3: CAAP Action Consistency		
Building Energy		
1. <u>TIER 1:</u> Zero-Carbon Electricity For all projects except heavy industry (but including light industrial projects), the project must utilize 100% zero-carbon electricity on-site. The project must comply with one of the following options: 1. Install on-site renewable energy systems or participate in a community solar program to supply 100% of the project's estimated energy demand to the maximum extent feasible. 2. Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until which time SCE provides 100% carbon-free electricity for all accounts by default. 3. A combination of #1 and #2 above such that 100% of the project's electricity is zero-carbon. **Supports CAAP Measures:** BE-1, BE-2, BE-3	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed
2. <u>TIER 1:</u> MUNICIPAL PROJECTS ONLY: Reduce Energy Use and Supply the Project with Renewable Electricity The Project must incorporate the following design elements to the maximum extent feasible: 1. Incorporate strategic energy management programs to reduce building energy demands. 2. Energy efficiency design features to reduce electricity and natural gas energy use beyond Title 24 Building Energy requirements. 3. Install on-site renewable energy systems, such as rooftop solar PV.	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
4. Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until which time SCE provides 100% carbon-free electricity for all accounts by default. **Supports CAAP Measures:** BE-6		
3. <u>TIER 1:</u> Comply with all City building energy codes and ordinances The Project must comply with all applicable City building energy codes and ordinances at the time of project approval. This includes, but is not limited to, any requirements for electrification, energy use intensity factors, zero-net-energy construction, CalGreen Tier 2 or other energy measures, or LEED requirements. **Supports CAAP Measures:** BE-7	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed
4. <u>TIER 2:</u> Building Energy Efficiency This action applies only to projects that include a retrofit of an existing building. If the proposed project does not include a retrofit, select "Not Applicable" in the Project Conformance column. Projects are encouraged to incorporate energy efficiency measures into the design, which can reduce carbon emissions while also reducing future operational costs through the following: 1. Incorporate strategic energy management programs to reduce building energy demands. 2. Conduct an energy audit or benchmarking analysis to identify potential energy savings opportunities and implement such opportunities. 3. Achieve CalGreen Tier 2 or voluntary building energy measures as they apply to the retrofit. 4. Reduce or eliminate the use of natural gas in place of electricity use (i.e., replace existing natural gas appliances with electric alternatives) 5. Replace existing appliances with higher-efficiency models 6. Install high-efficiency appliances/fixtures to reduce water use, and/or include water-efficient landscape design	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
7. Participate in SoCalREN, SCE, or other energy efficiency programs 8. Conduct other energy efficiency retrofits 9. Achieve zero-net-energy **Supports CAAP Measures:** BE-4, BE-5		
Waste		
5. <u>TIER 1:</u> Recyclable Materials Recycling The project must comply with all state and local requirements for recycling, also including but not limited to, Chapter 8.60 Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction in the City's Municipal code. The project must also: 1. Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Section 18.67.100. 2. Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants. 3. Ensure that all projects include space for multi-stream collection containers in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. The project must provide educational material and training to occupants and tenants in how to properly separate recyclables from all other solid waste and place recyclables in a separate container designated for recycling. 4. Ensure that all project occupants and tenants separate recyclables from all other refuse and place recyclables in a separate container designated for recycling.	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
5. Ensure containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the City as requested. 6. Work with waste hauler to provide educational material to tenants at least on an annual basis. 7. Provide compliance data to the City as required for any current auditing program. **Supports CAAP Measures:** W-1		
6. <u>TIER 1:</u> Organics Composting The project must comply with all state and local requirements for composting and organic waste collection, including but not limited to, Chapter 8.60 Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction in the City's Municipal code. The project must also: 1. Provide proper storage, collection, and loading of organics in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes of collection containers for organics. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants. 2. Ensure that all projects include space for multi-stream collection containers for both recycling and organics in any location where a solid waste container is traditionally housed. This includes both outdoor collection containers serviced by a waste hauler or indoor collection containers utilized by occupants. The project must provide educational material and training to occupants and tenants in how to properly separate organics from all other solid waste and place organics in a separate container designated for organics. 3. Ensure that all project occupants and tenants will separate compostables from all other refuse and place compostables in a separate container designated for composting. 4. Ensure containers are audited annually to ensure proper service levels and to check for contamination. Report findings back to occupants within 30 days and to the City as requested.	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
5. Work with waste hauler to provide educational material to tenants at least on an annual basis. 6. Provide compliance data to the City as required for any current auditing program. **Supports CAAP Measures:** W-2, W-3		
7. <u>TIER 2:</u> Incorporate On-site Composting, Mulching, and/or Anaerobic Digestion The project may incorporate organic waste processing capabilities, such as composting, mulching, or anaerobic digestion facilities (where applicable). Collaborate with agencies to share organic processing information with interested parties. **Supports CAAP Measures:** W-4	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed
Transportation		
8. <u>TIER 2:</u> Meets Transportation Screening Criteria Does the project meet <u>one</u> of the following transportation screening criteria? 1. Is the project located in a Transit Priority Area or High Quality Transit Area? 2. Does the project include local-serving retail (e.g., grocery stores, pharmacies, or restaurants) less than 50,000 square feet? 3. Does the project include 100 percent affordable housing units(excluding the Manager's unit)? 4. Will the project result in less than 110 total daily vehicle trips at full buildout? If "Yes," skip checklist items #9 though #14 and proceed to checklist item #15 (*Comply with the City's Transportation Impact Guidelines*) below. If "No," proceed to checklist item #6 below. **Supports CAAP Measures:** T-1, T-2, T-3, T-5, T-6, T-7, T-8, T-9	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
9. <u>TIER 1:</u> Trip Reduction Features to Reduce Vehicle Miles Traveled The project must incorporate vehicle trip reduction features into the project design or as mitigation measures. These features must achieve a minimum five percent reduction in vehicle trips and VMT as compared to the project without such vehicle trip reduction features, as estimated through practices backed by substantial evidence with cited reduction potential in the TIA guidelines Appendix A. This can be achieved through the implementation of a project-specific TDM Plan (see checklist item #13), offering transit subsidies, incorporating pedestrian and bicycle infrastructure (see checklist items #10 and #11), implementing parking restrictions or pricing, or including other features and measures to reduce vehicle trips. **Supports CAAP Measures:** T-1	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed
10. <u>TIER 1:</u> Incorporate Pedestrian Infrastructure The project must incorporate pedestrian infrastructure into its design: 1. Pedestrian facilities and connections to public transportation consistent with the City's Mobility Element, CX3 Pedestrian Plan, and any other relevant governing plan 2. Increase sidewalk coverage to improve pedestrian access 3. Improve degraded or substandard sidewalks 4. Maximize shade for pedestrians through tree planting and maintenance 5. Incorporate best practices to ensure pedestrian infrastructure is contiguous and links externally with existing and planned pedestrian facilities; best practices include high-visibility crosswalks, pedestrian hybrid beacons, and other pedestrian signals, mid-block crossing walks, pedestrian refuge islands, speed tables, bulb-outs (curb extensions), curb ramps, signage, pavement markings, pedestrian-only connections and districts, landscaping, and other improvements to pedestrian safety 6. Minimize barriers to pedestrian access and interconnectivity, such as walls, landscaping buffers, slopes, and unprotected crossings	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
Supports CAAP Measures: T-2		
11. <u>TIER 1:</u> Incorporate Bicycle Infrastructure The project must incorporate bicycle infrastructure into its design: 1. Bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increased of use intensity, and added off-street vehicle parking spaces 2. Provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity and nothing less than CalGREEN requirements, whichever is more restrictive 3. Bicycle facilities consistent with the City's Bicycle Master Plan, Urban Design Element, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen **Supports CAAP Measures:** T-3	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed
12. <u>TIER 1:</u> Incorporate Electric Vehicle Charging Infrastructure The project must comply with any CalGREEN requirement, City ordinance, building code, or condition of approval that requires a certain amount of EV charging infrastructure and readiness. This may include minimum requirements for EV charging stations, EV-capable parking spaces, and EV-ready parking spaces. **Supports CAAP Measures:** T-5	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed
13. <u>TIER 1:</u> Comply with City TDM Ordinance The Project must comply with the City's TDM ordinance at the time of project approval. This may include preferential carpool/vanpool parking, bicycle parking, and shower facilities and locker rooms; trip reduction plans; transit-supportive infrastructure development; and similar strategies. Comply with any applicable VMT reduction target and incorporate any required monitoring mechanisms for development, subject to the ordinance. **Supports CAAP Measures:** T-7	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed
14. <u>TIER 1:</u> Comply with the City's Transportation Impact Guidelines	*Describe which project consistency options from the leftmost column you are implementing.*	☐ Project Complies

CAAP Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
The project must comply with the City's current Transportation Impact (TIA) Guidelines. Projects may screen out if they meet certain criteria, such as being located in a transit priority area or local-serving retail development less than 50,000 square feet. For projects which don't screen out must meet the VMT efficiency metrics identified by the TIA Guidelines (e.g., 11.8 daily VMT per capita for residential projects and 18.0 daily VMT per capita for office projects). **Supports CAAP Measures:** T-9	*OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed
15. <u>TIER 2:</u> High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design Projects should maximize the following characteristics whenever feasible: 1. Located in a transit priority area or transit corridor 2. Includes local-serving retail (e.g., grocery stores, pharmacies, or restaurants) 3. Includes 100 percent affordable housing units or an otherwise high level of affordable housing as defined by the City for the project site 4. Includes a mix of land uses 5. Includes shared and reduced parking strategies, such as shared parking facilities, carpool/vanpool-only spaces, shuttle facilities, EV-only spaces, and reduced parking below allowable amount 6. Does not provide more parking than required **Supports CAAP Measures:** T-6, T-8	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

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

TABLE 2
STEP 4: CAAP GREENHOUSE GAS REPLACEMENT MEASURES

Description of Proposed Alternative / Replacement Measure	Description of GHG Reduction Estimate	Proposed Measure Implementation
Replacement for CAAP Consistency Requirement #: *[Number]* **Emissions Sector:** *[Building energy, transportation, waste, or other sector]* **Measure Description:** *[Describe the proposed project measure and why it is proposed]* **Supports CAAP Measures:** *[CAAP Measure(s)]*	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emission reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development measures and actions.]*	☐ Part of Design ☐ Additional Measure
Replacement for CAAP Consistency Requirement #: *[Number]* **Emissions Sector:** *[Building energy, transportation, waste, or other sector]* **Measure Description:** *[Describe the proposed project measure and why it is proposed]* **Supports CAAP Measures:** *[CAAP Measure(s)]*	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emission reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development measures and actions.]*	☐ Part of Design ☐ Additional Measure
Replacement for CAAP Consistency Requirement #: *[Number]* **Emissions Sector:** *[Building energy, transportation, waste, or other sector]* **Measure Description:** *[Describe the proposed project measure and why it is proposed]* **Supports CAAP Measures:** *[CAAP Measure(s)]*	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emission reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development measures and actions.]*	☐ Part of Design ☐ Additional Measure
Replacement for CAAP Consistency Requirement #: *[Number]* **Emissions Sector:** *[Building energy, transportation, waste, or other sector]* **Measure Description:** *[Describe the proposed project measure and why it is proposed]* **Supports CAAP Measures:** *[CAAP Measure(s)]*	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emission reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development measures and actions.]*	☐ Part of Design ☐ Additional Measure
Replacement for CAAP Consistency Requirement #: *[Number]* **Emissions Sector:** *[Building energy, transportation, waste, or other sector]*	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG*	☐ Part of Design ☐ Additional Measure

Measure Description: *[Describe the proposed project measure and why it is proposed]* **Supports CAAP Measures:** *[CAAP Measure(s)]*	*emission reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development measures and actions.]*	
Replacement for CAAP Consistency Requirement #: *[Number]* **Emissions Sector:** *[Building energy, transportation, waste, or other sector]* **Measure Description:** *[Describe the proposed project measure and why it is proposed]* **Supports CAAP Measures:** *[CAAP Measure(s)]*	*[Demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions.* *Include a description of how your measure will reduce emissions and provide supporting quantification documentation and assumptions. The GHG emission reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development measures and actions.]*	☐ Part of Design ☐ Additional Measure

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

TABLE 3
STEP 5: CAAP ADAPTATION ACTION CONSISTENCY CHECKLIST

CAAP Adaptation Action Consistency Requirement	Description of Project Measure(s) / Documentation of Compliance	Project Consistency
Extreme Heat		
1. Incorporate Cool Roofs, Cool Walls, Reflective Streets, Cool Surfaces, and Shade Canopies The project incorporates the following features into its design, but not less than the California Energy Code: 1. Cool roofs and/or walls in place of dark roofs and/or conventional walls 2. Cool pavements and reflective street materials 3. Shade canopy installations 4. Other heat island mitigation design features **Supports CAAP Measures:** EH-1, EH-2	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply
2. Incorporate Tree Plantings and Expands Urban Forest Cover The project enhances and expands urban forest cover and vegetation by planting trees and other vegetation. All trees and vegetation planted must be drought-tolerant or California native trees & plants. **Supports CAAP Measures:** EH-3	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply
3. Incorporate Bus Shelter Amenities For any project that includes the installation of a new bus shelter, the project must include bus shelter amenities such as shade structures. **Supports CAAP Measures:** EH-7	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply

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

The project incorporates water use efficiency and conservation measures, including: 1. CalGreen Tier 1 and Tier 2 voluntary water conservation measures 2. Low-flow or high-efficiency water fixtures 3. Water-efficient landscapes with lower water demands than required by the DWR 2015 Model Water Efficient Landscape Ordinance (MWELO) 4. Drought-tolerant and native plant species only 5. Other applicable strategies to reduce water use **Supports CAAP Measures:** DRT-1	*OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Not Applicable ☐ Project Does Not Comply
8. Incorporate Green Infrastructure and Green Streets The project shall incorporate green infrastructure such as permeable pavement, bioretention areas, bioswales, or vegetated strips. **Supports CAAP Measures:** DRT-3	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply
9. Use Recycled Water and Greywater for Non-Potable Uses; includes Rainfall Capture The project uses recycled water and/or greywater for non-potable uses and incorporates water reuse strategies onsite, such as rainfall capture systems. The project would: 1. Require use of reclaimed / recycled water and/or grey water for outdoor uses 2. Install residential greywater systems that meet appropriate regulatory standards 3. Install rainfall capture systems 4. Install dual plumbing for the use of recycled water **Supports CAAP Measures:** DRT-4, DRT-5	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply

Sea Level Rise and Flooding		
10. Comply with all City Floodplain and Sea Level Rise Regulations The project complies with all City and FEMA floodplain regulations as necessary to limit, elevate, or provide floodproofing standards in areas designated as vulnerable to flooding in order to minimize physical damage to development. This includes compliance with all applicable FEMA, California Building Code, City Building Code Chapter 18.40 and Floodplain Ordinance requirements. The project also complies with all applicable sea level rise regulations and ordinances, such as the Local Coastal Program. The project applicant must notify all residents, tenants, and occupants if the project is located on a FEMA floodplain map and a sea level rise inundation map and shall provide these maps to residents, tenants, and occupants. **Supports CAAP Measures:** FLD-1, FLD-2	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply
11. Comply with the City's Current Stormwater Management Plan The project must comply with the City's Current Stormwater Management Plan and all related ordinances related to stormwater management and sea level rise scenarios evaluated by the City. **Supports CAAP Measures:** FLD-5	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply
12. Ensure that all critical infrastructure in the sea level rise vulnerability zone is elevated, relocated, or floodproofed. For any project related infrastructure or infrastructure improvements, the project must sufficiently elevate, relocate, or install sufficient floodproofing techniques for all critical infrastructure in the City's sea level rise vulnerability zone pursuant to all City requirements. The project uses floodproofing techniques as necessary. **Supports CAAP Measures:** FLD-10	*Describe which, if any, project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply
13. Adapt Street Hardscapes and Waterfront Streets and Paths	*Describe which, if any, project consistency options from the leftmost column you are implementing.*	☐ Project Complies ☐ Not Applicable

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

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

LONG BEACH DEVELOPMENT SERVICES | PLANNING BUREAU

Climate Action + Adaptation Plan Consistency Review Checklist: Technical Support Documentation

Introduction

In November 2020, the City of Long Beach adopted the Climate Action + Adaptation Plan (CAAP), which is a is a comprehensive planning document outlining the City's proposed approach both to address climate impacts on the city and to reduce the City's impact on the climate by reducing greenhouse gas (GHG) emissions. The CAAP demonstrates how the City will achieve its proportional share of State GHG emission reductions by 2030.

The purpose of the Climate Action + Adaptation Plan Consistency Review Checklist (referred to herein as the *CAAP Checklist*) is to provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA). This technical support document describes the process used to develop the CAAP Checklist and provides justification for the project-specific consistency requirements included therein. It specifically provides substantial evidence that implementing these requirements on a project-by-project basis will collectively achieve the CAAP's target emissions level for new development, as required by CEQA Guidelines Section 15183.5(b)(1)(D). New development can contribute its fair-share of GHG reductions by complying with CAAP mitigation actions that were determined to be applicable through the checklist development process. The following sections provide additional information about the steps used to determine the applicability of individual actions to new development projects in the City.

CEQA Compliance and Background Information

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.[1] The City's 2030 target is established on a per service population (SP) basis and aims to achieve emissions rates of 3.04 metric tons of carbon dioxide equivalent

[1] City of Long Beach, July 2020, *City of Long Beach Climate Action and Adaptation Plan GHG Emissions Reduction Target Options Memo #3*.

($MTCO_2e$) per SP ($MTCO_2e$/SP). This compares to the City's 2030 business-as-usual forecast of 3.34 $MTCO_2e$/SP. Based on the City's SP growth estimates, the 2030 target emissions level is 1,984,272 $MTCO_2e$ per year. Annual GHG reductions of approximately 192,659 $MTCO_2e$ by 2030 will be required to achieve this target, or a reduction of approximately 0.3 $MTCO_2e$/SP.

As described in the CAAP, these GHG reductions will occur through a combination of City initiatives in various plans and policies and will provide reductions from both existing and new developments. The CAAP Checklist specifically applies to proposed discretionary projects that require environmental review pursuant to CEQA. Therefore, the CAAP Checklist is a critical implementation tool in the City's overall strategy to reduce GHG emissions. Implementation of applicable CAAP Actions in new development projects will help the City achieve incremental reductions toward its target.

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) 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 Environmental Impact Report (EIR) for the CAAP. In doing so; pursuant to 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).[2]

This 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 §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. 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.

Projects that are not consistent with the CAAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions

[2] Association of Environmental Professionals, 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, available at https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf.

and incorporation of the measures in this CAAP Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

As required by CEQA Guidelines Section 15183.5(b)(1)(E), the City will monitor strategy implementation and make updates, as necessary, to maintain an appropriate trajectory to the 2030 GHG target. CAAP updates will occur approximately every 5 years and can be scheduled to align with other City milestones, such as General Plan updates to the Land Use and Mobility Elements or budgetary cycles. If regular monitoring shows the CAAP is on track toward the GHG target, then CAAP updates may not be necessary. The City will also develop a comprehensive CAAP update following the current 2030 target year to provide greater analysis of the actions and implementation steps necessary to achieve the City's 2045 carbon neutrality goal. The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAAP or local, State, or federal law.

Climate Action + Adaptation Plan Summary

The CAAP includes a baseline inventory of citywide production-based[3] GHG emissions for 2010; a business-as-usual (BAU) emissions forecast for 2030, 2040, and 2050;[4] a calculation of the City's target GHG emissions for 2030 and its aspirational GHG goal for 2045; and an evaluation of the GHG emission reductions needed in each target year from implementation of local actions.[5]

In 2015, the City's production-based GHG emissions totaled 3,100,468 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year in 2015, which equates to 6.6 $MTCO_2e$ per Long Beach resident and 5.0 $MTCO_2e$ per service population (SP) (i.e., residents plus employees). BAU emissions are estimated to be 2,176,931 $MTCO_2e$ in 2030, which equates to 3.3 $MTCO_2e$/SP. BAU emissions would be 1,732,030 $MTCO_2e$ in 2040 (2.6 $MTCO_2e$/SP) and 1,491,905 $MTCO_2e$ in 2050 (2.2 $MTCO_2e$/SP).

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

[3] The production-based inventory includes emissions associated with activities taking place within the city that generate GHG emissions which occur inside the city boundary (such as building natural gas combustion) as well as outside the city boundary (such as building electricity consumption, where the electricity is generated at a power plant located outside of the City). This inventory includes "jurisdictional emissions" – those emissions sources over which the City and community have some amount of influence. This differs from the CAAP's "consumption-based" inventory which accounts for emissions inside and outside of the City that occur from consumptive activities in the City, such as emissions generated in the production and use of goods and services by households.

[4] The BAU forecast indicates how emissions would increase if no additional actions were taken by the City to reduce emissions. This accounts for the growth in population, housing, employment and building square footage that is expected for the City through the year 2045. The BAU forecast does account for the expected impacts of foreseeable federal, state, and regional actions, based on the latest information from CARB and the 2017 Climate Change Scoping Plan. This includes the state's Renewables Portfolio Standard (RPS), the Pavley vehicle emission standards and Advanced Clean Cars, the Low Carbon Fuel Standard, and the effect of SCAG 2016 Regional Transportation Plan/Sustainable Community Strategy on land use changes, vehicle trips, and VMT.

[5] City of Long Beach, 2020, *Climate Action + Adaptation Plan Appendix A Greenhouse Gas Inventory Methodology and 2030 Reduction Target Pathway*, November 23, available at https://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/caap/lb-caap-proposed-plan-app-a-_dec-14, accessed December 2021.

statewide 2030 target.[6,7] The City's 2030 target is established on a per service population (SP) basis and aims to achieve emissions rates of 3.04 $MTCO_2e$/SP. This compares to the City's 2030 BAU forecast of 3.34 $MTCO_2e$/SP. Based on the City's SP growth estimates, the 2030 target emissions level is 1,984,272 $MTCO_2e$/yr. GHG reductions of approximately 192,659 $MTCO_2e$ will be required to achieve this target (a reduction of approximately 0.3 $MTCO_2e$/SP).

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

The CAAP includes 21 priority GHG emission reduction "Mitigation Actions"[8] that shall be implemented for the City achieve its proportional share of State GHG emission reductions for the near-term target year 2030 (referred to herein as *CAAP Actions*). These actions are organized into three sectors: 1) Building Energy; 2) Waste; and 3) Transportation.

Table A *CAAP Baseline Inventory, BAU Forecasts, and Emission Reduction Targets* presents the City's GHG emissions inventory, BAU forecast, and target levels as evaluated in the CAAP.

TABLE A
CAAP BASELINE INVENTORY, BAU FORECASTS, AND EMISSION REDUCTION TARGETS

Category	GHG Emissions ($MTCO_2e$)		
	2015	2030	2045 [a]
GHG Emissions (2015 Baseline and BAU Forecasts)	2,799,123	2,176,931	1,513,047
CAAP Target Level: Emissions Per SP	-	3.04	0
CAAP Target Level: Mass Emissions	-	1,984,272	0
CAAP Reductions Needed	-	192,659	1,513,047
CAAP Estimated Reductions	-	363,250	n/a
Total Emissions after CAAP Implementation: Mass Emissions	-	1,813,682	n/a
Total Emissions after CAAP Implementation: Emissions Per SP	5.0	2.78	n/a

NOTES:

[a] The CAAP's 2045 target is aspirational in nature and not the primary reduction goal of the CAAP and the City. In addition, forecasting the CAAP's ability to reduce GHG emissions out to 2045 is speculative given the long timeframe (more than 20 years), uncertainties in future technology, and emissions modeling limitations. As such, the CAAP did not forecast emission reductions out to 2045.

SOURCE: City of Long Beach, 2020, *Climate Action + Adaptation Plan*, November, available at https://www.longbeach.gov/lbds/planning/caap/, accessed October 2021.

6 California Air Resources Board, 2017, *California's 2017 Climate Change Scoping Plan*, November, available at https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents, accessed October 2021.

7 City of Long Beach, July 2020, *City of Long Beach Climate Action and Adaptation Plan GHG Emissions Reduction Target Options Memo #3*.

8 It should be noted that the CAAP's "mitigation actions" are not mitigation measures as defined by CEQA; they are actions to "mitigate" GHG emissions. This document refers to these as "CAAP Actions" throughout.

By meeting the 2030 target, the City will meet its proportional share of the 2030 state target identified in SB 32. However, full implementation of all 21 priority actions will not be enough to achieve carbon neutrality in 2045. If emission reductions from these actions were maximized by 2045, total emissions would still be approximately 1.1 million $MTCO_2e$ based on preliminary estimates. As a result, additional action will be needed to achieve the City's ambitious carbon neutrality goal. However, future actions anticipated by the state and possible federal initiatives would reduce the need for local measures and help ensure broader participation in emission reduction efforts. If CARB adopts a recommendation for a percentage reduction for local governments for future years, the City will amend its targets accordingly.

The CAAP also includes 40 "Adaptation Actions" that are identified 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.[9] These actions are organized into four climate impacts: 1) Extreme Heat; 2) Air Quality; 3) Drought; and 4) Sea level rise and flooding.

CAAP Consistency Checklist Components

As noted above, the CAAP Checklist provides a streamlined review process for the GHG emissions analysis of proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to CEQA, per section 15183.5 of the CEQA Guidelines. The following sections describe the components of the CAAP Checklist and technical support information for its development. It serves to provide substantial evidence that the requirements placed on new development are sufficient to ensure consistency with the City's CAAP and achieve the CAAP's target emissions level for new development.

Land Use Consistency

The first step in the CAAP Consistency Checklist is to demonstrate consistency with the City's General Plan and the existing land use designation of the 2019 Land Use Element (LUE). The GHG emissions forecasts in the CAAP were developed using various data sources for each emissions sector. For example, population forecasts were used to project residential electricity-related emissions; employment was used to project commercial, institutional, and industrial electricity-related emissions; the 2018 California Gas Report[10] was used to project natural gas-related emissions; transportation-related emissions were projected using regional VMT data from the Southern California Associated of Governments (SCAG) 2012 Regional Transportation Plan / Sustainable Community Strategy (RTP/SCS) Regional Travel Demand model[11] and CARB's EMission FACtors 2014 (EMFAC2014) model.

9 Adaptation actions were developed based on the 2018 Long Beach Climate Stressors Review (Appendix D to the CAAP) and the Long Beach Climate Change Vulnerability Assessment Results (Appendix C to the CAAP).

10 California Gas and Electric Utilities, *2018 California Gas Report*, available at https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf, accessed December 2021.

11 For more information, see https://scag.ca.gov/trip-based-model

Table B *CAAP Socioeconomic and Building Square Footage Data* presents the population, housing, employment, and building square footage data used in the CAAP's emissions forecast and emission reduction calculations.

TABLE B
CAAP SOCIOECONOMIC AND BUILDING SQUARE FOOTAGE DATA

Category	2015	2030
Population	468,911	480,424
Employment	155,402	172,297
Service Population (Population + Employment)	624,313	652,721
Households	166,782	182,247
Single-Family	64,061	65,039
Multifamily	102,721	117,208
Nonresidential square footage	69,232,878	77,771,354
Commercial	21,153,178	22,187,152
Office	8,213,696	9,936,986
Industrial	18,269,678	23,520,644
Institutional	21,596,326	22,126,572
Nonresidential square footage	166,782	182,247

SOURCE: City of Long Beach, 2020, *Climate Action + Adaptation Plan*, November, available at https://www.longbeach.gov/lbds/planning/caap/, accessed October 2021; City of Long Beach.

The forecasts were based on the 2019 Land Use Element (LUE published in 2015, revised land use maps published in 2018, project adopted in 2019) and 2013 Mobility Elements of the City's General Plan. The City reviewed the assumptions used to forecast emissions in the City's CAAP and developed a series of questions that allow the City to assess a project's consistency with the land use assumptions used in the CAAP. This step is intended to provide the substantial evidence that a project that is consistent with the CAAP's GHG projections would not result in a cumulatively considerable GHG impact if otherwise consistent with the CAAP. In general, for the CAAP to be applicable to a project, the project must be consistent with the CAAP's forecasts. If a project is consistent with the CAAP's forecasts, the project's growth was accounted for in the CAAP's BAU emissions projection. This in turn means that if the project is consistent with the CAAP Actions, implementing the CAAP would result in overall GHG emissions that would be less than the CAAP's identified GHG targets for the City, and would therefore be less than significant, as set forth in the Subsequent Environmental Impact Report for the CAAP.

See *Step 1: Demonstrate consistency with the City's General Plan* below for detailed instructions for determining land use consistency.

Not all projects that are inconsistent with existing General Plan and LUE would be inconsistent with the CAAP's emission reduction targets and actions. For example, if a project achieves less GHG emissions per service population than the future no-project alternative at the project site, it would still be within the projections assumed in the CAAP and can move forward to Step 2 of the

Checklist. Estimated GHG emissions for the project would need to be provided to support this conclusion. As another example, if a project includes a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing land use designations, it would still be within the projections assumed in the CAAP and can move forward to Step 2 of the Checklist. Estimated GHG emissions under the existing and proposed designations would need to be provided to support this conclusion. These alternative options are explained below in *Step 1: Demonstrate consistency with the City's General Plan*.

CAAP Mitigation Action Consistency

The CAAP identifies specific goals, actions, and targets supporting each of the 21 priority CAAP Actions. The CAAP Actions include a combination of ordinances, City Council policies, resolutions, programs, and incentives, as well as outreach and education activities. As the CAAP is implemented, each CAAP Action will be assessed and monitored. The CAAP also included implementing actions for each CAAP Action; these implementing actions would work together to achieve the overall goals and targets of each CAAP Action and thereby reduce GHG emissions to the target levels.

As described in the CAAP, there is an existing framework of federal, state, regional, and local regulations that contribute to reducing GHG emissions. Some of these actions are already included in the City's BAU forecast. However, federal, state, and regional actions by themselves would not achieve the City's target for 2030. Therefore, local actions that reduce emissions from both the built environment and new development would be necessary. While the City will work to achieve reductions outlined in the CAAP through planning processes and new ordinances, new development can do its fair share in helping the City achieve its targets by incorporating specific project design features and other measures consistent with the CAAP. This also provides new development with the benefit of using CEQA streamlining provisions for addressing its GHG impacts, as discussed in the *CEQA Compliance and Background Information* section above.

The CAAP's 2015 baseline includes the effect of regulations that were in place at that time. The 2030 forecast, however, accounts for existing (implemented since 2015) and reasonably foreseeable state programs. For example, projected emissions in the stationary energy sector include reductions in electricity and natural gas use due to implementation of the 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6) and some fuel switching. Similarly, projected emissions from the transportation sector were estimated using emission factors from the EMFAC2014 model which includes projected fleet turnover and implementation of Pavley fuel efficiency standards in future years. The gap in emission reductions need to achieve the CAAP's 2030 target that remains after the projected emissions are adjusted for known state actions demonstrates the need for local action.

Given this, the CAAP identified actions that would exceed existing state or local regulatory requirements already assumed in the CAAP's BAU forecast. Many of these actions would apply to new development and were therefore included in the CAAP Checklist. The CAAP Checklist therefore addresses CAAP Actions that would be additional to the requirements of existing state

and local codes. If a new project incorporates all CAAP Action requirements listed in CAAP Checklist, it would not hinder the City's ability to achieve its 2030 reduction target but rather would contribute to the City's ability to meet its overall CAAP targets.

The CAAP also identifies implementing actions for each overall CAAP Action. The overall intent of the CAAP Action and implementing actions provide the basis for the identified CAAP Action requirements listed in CAAP Checklist. Details on each requirement are provided in the following sections. The CAAP Checklist will be updated by the City as needed to incorporate new GHG reduction techniques or to comply with later amendments to the CAAP or local, state, or federal law. Certain CAAP Action requirements listed in CAAP Checklist may otherwise become mandatory through future updates to state and local codes or through adoption of local ordinances. If the CAAP performance and monitoring process (see CAAP Chapter 8) reveals the need for further GHG emission reductions to stay on track to meet the City's 2030 reduction target, the CAAP Checklist may be updated to include additional applicable measures for new development.

See *Step 2: Determine if project screens out of CAAP Action consistency* and *Step 3: Demonstrate consistency with CAAP GHG Emission Reduction Actions* below for instructions for demonstrating consistency with the CAAP Actions and for additional detail on the CAAP Action consistency requirements for new development and how these requirements align with the CAAP Mitigation Actions.

CAAP Adaptation Action Consistency

As discussed above, the CAAP also includes 40 Adaptation Actions that are identified to improve the ability of Long Beach and its residents and businesses to adapt to climate change. These actions establish an initial roadmap to withstand rising temperatures, flooding associated with sea level rise and intense storm events, and drought among others.

Projects must demonstrate consistency with the CAAP Adaptation Action requirements or document why the actions are not applicable or are infeasible. Many of the Adaptation Actions may not apply directly to a development project, such as elevating all critical infrastructure in the sea level rise vulnerability zone. However, all projects must implement all applicable and feasible CAAP Adaptation Action consistency requirements to ensure consistency with the CAAP towards adapting to climate change and its related impacts as much as possible.

Implementation of the CAAP Adaptation Action consistency requirements would not directly contribute toward the City's ability to reduce GHG emissions and meet its emission reduction targets. Nevertheless, projects must still implement all applicable and feasible CAAP Adaptation Action consistency requirements to demonstrate their consistency with the CAAP as a whole.

See *Step 4: Identify Alternative Project Emission Reduction Measures and Additional GHG Reductions* below for additional detail on the CAAP Adaptation Action consistency requirements for new development and how these requirements align with the CAAP Adaptation Actions.

CAP Consistency Checklist Steps

Project applicants shall complete the following steps to demonstrate conformance with the City of Long Beach Climate Action + Adaptation Plan for the proposed project.

Step 1. Demonstrate consistency with the City's General Plan (CAAP Checklist Table 1)

Step 2. Determine if project screens out of CAAP Action consistency (CAAP Checklist Table 1)

Step 3. Demonstrate consistency with the CAAP GHG Emission Reduction Actions (CAAP Checklist Table 1)

Step 4. Identify alternative project emission reduction measures and additional GHG reductions if necessary (CAAP Checklist Table 2)

Step 5. Demonstrate consistency with the CAAP Adaptation Actions (CAAP Checklist Table 3)

All projects must complete ***Step 1.*** *Demonstrate consistency with the City's General Plan*, ***Step 2.*** *Determine if project screens out of CAAP Action consistency*, ***Step 3.*** *Demonstrate consistency with CAAP GHG Emission Reduction Actions*, and ***Step 5.*** *Demonstrate consistency with the CAAP Adaptation Actions*. Projects that propose alternative GHG emission reduction measures must also complete ***Step 4.*** *Identify Alternative Project Emission Reduction Measures and Additional GHG Reductions*.

Step 1: Demonstrate consistency with the City's General Plan

All projects must demonstrate consistency with the City's General Plan and the existing land use designation of the 2019 LUE. This represents **Step 1** of the CAAP Checklist. Alternatively, if a project is not consistent with the land use designation of the 2019 LUE, the project must identify an alternative compliance mechanism. As described in the CAAP Checklist, projects must answer the following questions:

1. Is the proposed project consistent with the existing land use designation of the 2019 Land Use Element?

2. If no to #1, does the project achieve emissions of 1.4 $MTCO_2e$ per service population or less?

3. If no to #1 and #2, does the project result in fewer GHG emissions per service population than the future no-project development based on existing land use designations at the project site?

For question #1, the demographic forecasts and land use assumptions of the CAAP are based on the 2019 Land Use and 2013 Mobility Elements of the City's General Plan.

However, the 2019 LUE is the City's current Land Use element, and therefore all projects must demonstrate consistency with the 2019 LUE to be permitted without a general plan amendment. Further, the slight difference in population and employment numbers would likely not inhibit the

CAAP from achieving its target emissions level, as was demonstrated above for VMT. Accordingly, the analysis of the project's GHG emissions in its CEQA document should include a reference to the project's consistency with the existing land use designation of the 2019 LUE.

For question #2, projects that are not consistent with the land use designation of the 2019 LUE can demonstrate an emissions efficiency level of 1.4 $MTCO_2e$ per service population instead. This level is low enough that the project would be fully consistent with the CAAP, even if it is not consistent with the land use designation of the 2019 LUE. For evidence supporting this conclusion, please see the *GHG Emissions Less than 1.4 $MTCO_2e$ per Service Population* section below.

For question #3, projects that are not consistent with the land use designation of the 2019 LUE, and cannot demonstrate an emissions efficiency level of 1.4 $MTCO_2e$ per service population, the project can instead demonstrate that they would result in fewer GHG emissions per service population than the future no-project development based on existing land use designations at the project site. In other words, the project would not be more GHG intensive than what would occur for a project consistent with the 2019 LUE. Therefore, even though the project's emissions aren't specifically included in the CAAP's emissions forecast, the project would produce equal or fewer GHG emissions per service population than the equivalent 2019 LUE-consistent project, and therefore be consistent with the CAAP. Projects would still have to complete the CAAP Checklist (**Step 2**).

If the project answers "no" to all three questions above (not consistent with the land use designation of the 2019 LUE, cannot demonstrate an emissions efficiency level of 1.4 $MTCO_2e$ per service population, , and cannot demonstrate an emissions level per service population lower than the future no-project development), then the project cannot use the CEQA Checklist to tier from the adopted EIR for the CAAP. Instead, the project's GHG emissions must be evaluated under a project-specific impact analysis pursuant to all CEQA requirements and incorporate the measures in the CAAP Checklist to the extent feasible.

Step 2: Determine if project screens out of CAAP Action consistency

Certain projects may screen out of the CAAP Checklist if they meet certain criteria. These criteria are designed to ensure high efficiency and low GHG emissions and describe projects that would generally be consistent with the CAAP's GHG emission reduction actions for new development. This represents **Step 2** of the CAAP Checklist.

As described in the CAAP Checklist, if the project can achieve emissions of 1.4 $MTCO_2e$ per service population or less, the project is considered consistent with the CAAP Actions and the analysis is complete.

Additionally, projects may skip completion of the Transportation subsection of the CAAP Action Screening Criteria section of Table 1 if they meet one of four transportation screening criteria.

These screening options are discussed in detail below.

GHG Emissions Less than 1.4 $MTCO_2e$ per Service Population

If projects can quantitatively demonstrate that they will 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 $MTCO_2e$ per service population (SP).

This efficiency emissions level was calculated using the following approach:

1. Estimated emissions from the land use sectors of the City's 2030 BAU forecast, because these are the emission sectors that would apply to new development. Emissions for the following sources were removed: Oil & Gas refining (Thums facility), tidelands flaring, agriculture, Port-related emissions (including diesel heavy-duty truck emissions), freight rail, Metro rail, harbor craft, cruise ships, and airport ground support equipment. The resulting land-use-based emissions of 1,687,782 $MTCO_2e$ represent 78 percent of total citywide emissions in 2030.

2. Calculated the CAAP's target reductions for the land use sector only by scaling total citywide reductions needed to achieve the CAAP's target (192,659 $MTCO_2e$) by the land use emissions fraction (78%) = 149,369 $MTCO_2e$.

3. Calculated the citywide target level for land use emissions by subtracting the land use target reductions calculated above from the 2030 BAU land use emissions = 1,538,412 $MTCO_2e$.

4. Because new development will naturally be more efficient than existing development, given new building energy standards, compliance with TIA guidelines, etc., it was assumed that new development would be 15% more efficient than existing development. This was based on the TIA's required reduction in daily VMT of 15% for residential and office projects (compared to regional average daily VMT) and data from the UCLA Energy Atlas for the City of Long Beach which indicates that post-1990 homes are approximately 15% more energy efficient than pre-1990 homes (more recent building vintage data was not available from UCLA).

5. Calculated the portion of the land use emissions target that would be achieved through existing development based on the 15% factor = 1,624,933 $MTCO_2e$; calculated the portion of the land use target that would be achieved through new development based on the 15% factor = 62,848 $MTCO_2e$.

6. Isolated the CAAP's reduction actions that apply to new land use development (see Table C below) = 21,840 $MTCO_2e$. Subtracted this value from the new development target level = 41,007 $MTCO_2e$ to get the proportion of reductions that would come through CAAP actions.

7. Divided this value by the growth in service population from 2015-2030 (28,408) to determine the efficiency level required of new development = 1.44 $MTCO_2e$/SP.

Therefore, the efficiently level of 1.4 $MTCO_2e$/SP (rounded down from 1.44) 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 efficiently level is therefore used as an alternative compliance approach to completing the CAAP

Consistency 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 tiering purposes.

Transportation Screening Criteria

Certain projects may screen out of the *Transportation* requirements 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) as defined by Southern California Association of Governments (SCAG).[12]

2. Includes local-serving retail (e.g., grocery stores, pharmacies, or restaurants) less than 50,000 square feet.

3. Includes 100% affordable housing

4. Would result in fewer than 110 daily trips per day.

These screening criteria represent characteristics that are desirable from a GHG emission reduction perspective, as envisioned by the CAAP and consistent with the screening criteria developed by the State of California for implementing SB743 to reduce vehicle miles traveled (VMT). Projects that meet these criteria are assumed to result in reduced transportation activity and significantly lower mobile source GHG emissions than the citywide average development and would therefore be consistent with the CAAP's transportation actions.

Any project which meets these criteria would still need to demonstrate consistency with the building energy and waste CAAP Actions by completing the *Building Energy* and *Waste* sections of the CAAP Checklist.

Transit Priority Area or HQTA

Projects located in a Transit Priority area or HQTA would have relatively low mobile source emissions on a per-capita basis compared to projects not located in these areas. The determination that these projects would screen out of the CAAP Checklist for transportation is based on the Long Beach TIA Guidelines and CEQA Guidelines Section 15064.3, Subsection (b), which states that "generally, [land use] projects within one- half mile of either an existing major transit stop or an existing high quality transit corridor should be presumed to cause a less than significant transportation impact." Figure 4 of the Long Beach TIA Guidelines displays the transit priority areas of Long Beach based on the California PRC definitions for major transit stops or high-

[12] SCAG defines a HQTA as an area within one half-mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. For more information, see: https://gisdata-scag.opendata.arcgis.com/datasets/43e6fef395d041c09deaeb369a513ca1/explore?location=34.152977%2C-117.742800%2C9.85

quality transit corridors. Any project located in these transit priority areas will be presumed to be consistent with the CAAP's transportation actions, unless the project:

- Has an overall Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required (if parking minimums pertain to the site) or allowed without a conditional use permit (if minimums and/or maximums pertain to the site);
- Is inconsistent with the Long Beach Land Use Element or the SCAG RTP/SCS; or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

A higher-density project located within a transit priority area could help the City achieve its VMT and mode share goals even though it would be inconsistent with the growth projections in the CAAP, whereas a higher-density project in a more remote location may not provide the same benefit. Projects in transit priority areas can support the CAAP by increasing the capacity for transit-supportive residential and/or employment densities. Projects can increase walking opportunities in a transit priority area by implementing pedestrian improvements through provision of multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries) and features for walkability as identified in the proposed project circulation system.

Although a project that increases density in a transit priority area (compared to existing land use designations) may lead to a short-term increase GHG emissions at the project site, the project is likely to reduce automobile trips in the long-term and produce related benefits. Higher density generally reduces the distance people travel and provides greater options for the mode of travel they choose. Transit ridership increases with density, justifying enhanced transit service.[13] The City can make progress towards its GHG reduction targets by accommodating growth in a more efficient manner, such as via higher density development in transit priority areas.

Local-Serving Retail

As discussed in the Long Beach TIA Guidelines, retail development that is 50,000 square feet (sf) or less is likely to be local-serving and tends to shorten trips within Long Beach. Therefore, any retail project 50,000 square feet or less will be presumed to be consistent with the CAAP's transportation actions (related to CEQA Guidelines Section 15064.3, subdivision (b)).

High Level of Affordable Housing

As discussed in the Long Beach TIA Guidelines, affordable residential development in areas with inadequate affordable housing has the potential to shorten commute distances and/or increase the

[13] California Air Pollution Control Officers Association, Sacramento Metropolitan Air Quality Management District, and ICF, *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, Final Draft, December 2021, available at https://www.airquality.org/residents/climate-change/ghg-handbook-caleemod. Accessed March 2022.

proportion of residents using transit, which would reduce VMT. Residential projects (or the residential portion of mixed-use projects) with 100 percent affordable dwelling units will be presumed to be consistent with the CAAP's transportation actions (pursuant to CEQA Guidelines Section 15064.3, subdivision (b)).

Fewer than 110 Trips per Day

According to the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA*, projects which would have fewer than 110 trips per day could be presumed to have a less than significant transportation impact related to CEQA Guidelines Section 15064.3, subdivision (b).[14] Therefore, these projects would be presumed to be consistent with the CAAP's transportation actions.

Step 3: Demonstrate consistency with CAAP GHG Emission Reduction Actions

All projects must demonstrate consistency with the CAAP Action requirements listed in CAAP Checklist Table 1 or document why the strategies are not applicable or are infeasible. However, if a project achieves emissions of 1.4 $MTCO_2e$ per service population or less as discussed in Step 1 above, the project would be consistent with the CAAP's target level and emission reduction actions and would not have to complete CAAP Checklist Table 1. All other projects must complete CAAP Checklist Table 1.[15] This represents **Step 3** of the CAAP Checklist.

The CAAP Action consistency requirements are listed as either "Tier 1" or "Tier 2." These two levels are defined as follows:

Tier 1: Required for all discretionary projects to demonstrate consistency with the CAAP.

Tier 2: Encouraged for all discretionary projects to the maximum extent feasible. Although these are not required, projects are strongly encouraged to implement as many of these as feasible.

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.

All projects are required to complete Tier 1 measures. Tier 1 measures are required because they are either: 1) quantified as part of the City's GHG reduction pathway for new development; or 2) required through ordinance, building code, or other city planning requirements (such as the

[14] The OPR Technical Advisory states the following: "CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact."

[15] Projects that meet certain transportation screening criteria, as discussed in the Step 2 *Transportation Screening Criteria* section above, may skip the *Transportation* section of CAAP Checklist.

Bicycle Master Plan). Tier 1 measures required for the Building and Energy sector include zero-carbon electricity, building energy efficiency, municipal project energy efficiency measures and solar PV installations , and compliance with building energy codes and ordinances. 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 1 measures required for the Waste sector include recyclable materials recycling and organics composting. If a project does not include specific Tier 1 measures, quantifiably equivalent measures for GHG emission reductions must be provided for the project to be considered consistent with the proposed CAAP (see section *Step 4: Identify Alternative Project Emission Reduction Measures and Additional GHG Reductions* below).

All projects are encouraged to complete Tier 2 measures, but they are not required. Tier 2 measures were not quantified as part of the City's GHG reduction pathway for new development. There are no Tier 2 measures identified for the Building and Energy sector. Tier 2 measures for the Transportation Sector include meeting the Transportation Screening Criteria and High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design. Tier 2 measures for the Waste sector include incorporation of on-site composting, mulching, and/or anaerobic digestion.

Tier 1 Measures: Quantitative Consistency Requirements

This section addresses each required Tier 1 CAAP consistency checklist item for new development that relates to a CAAP action that was quantified for GHG emission reductions in the CAAP. These items are mandatory for all projects. For each checklist item listed below, this document provides the quantitative basis behind the requirements for new development and demonstrates new development's "fair share" of the CAAP's mitigation of GHG emissions 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 CEQA Guidelines Section15130(a)(3).[16,17,18]

16 In Newhall Ranch, the court said, "Indeed, to proceed in this manner is consistent with CEQA's "inherent recognition ... that if a plan is in place to address a cumulative problem, a new project's incremental addition to the problem will not be `cumulatively considerable' if it is consistent with the plan and is doing its fair share to achieve the plan's goals." (Addressing the Significance of Greenhouse Gas Emissions, supra, 4 Golden Gate U. Envtl. L.J. at pp. 210–211.)"

17 "It is reasonable for new development to achieve a fair share of per capita VMT and GHG emissions reductions necessary to achieve statewide climate goals and to continue to work towards additional VMT and GHG emissions reductions through other measures." California Air Resources Board, *California Air Resources Board 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals*, January 2019, available at https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate, accessed August 2020.

18 CEQA Guidelines Section 15130(a)(3) state that "An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable."

Table C *CAAP Action Consistency: New Development Contributions* presents a summary of the specific requirements and performance standards for new development for the five quantified CAAP Actions. The table also presents total emission reductions achieved by new development for each measure and compares this to the total emission reduction necessary from all development (existing and new) citywide by 2030.

TABLE C
CAAP ACTION CONSISTENCY: NEW DEVELOPMENT CONTRIBUTIONS

Sector, CAAP Action Consistency Requirement, and CAAP Action	Summary of New Development Consistency Requirements	2030 GHG Emission Reductions ($MTCO_2e$)			Percent New Development of Total GHG Reduction
		New Development	Existing Development	Total	
Building Energy					
1. Zero-Carbon Electricity					
BE-1: Provide access to renewably generated electricity (SCE Green-Rate) [a]	100% zero-carbon electricity	16,650	9,680	26,330	63%
BE-2: Increase use of solar power					
Waste					
5. Recyclable Materials Recycling					
W-1: Ensure compliance with state law recycling program requirements for multi-family and commercial property recycling programs	Comply with all state and local requirements for recycling and mandate recycling onsite	2,240	43,100	45,330	5%
6. Organics Composting					
W-2: Develop an organic waste collection program for City-serviced accounts.	Comply with all state and local requirements for organic waste collection and mandate compostable material separation onsite	1,960	37,770	39,730	5%
Transportation					
9. Trip Reduction Features to Reduce Vehicle Miles Traveled					
T-1: Increase frequency, speed, connectivity, and safety of transit options	Five percent reduction in vehicle miles traveled (VMT)	990	4,340	5,330	19%
Total		**21,840**	**94,890**	**116,730**	**19%**

NOTES:

[a] In the CAAP, BE-1 includes emission reductions from SCE's commitment to an 80 percent carbon free energy supply by 2030 (which would occur independent of CAAP implementation outside of the City's jurisdiction), and also accounts for a proportion of SCE accounts in Long Beach enrolling in SCE's Green Rate program (within control of the City). The emission reductions presented in this table include only the portion of BE-1 associated with additional enrollment in SCE's Green Rate program, since all development will benefit from changes to SCE's default energy supply mix.

SOURCE: City of Long Beach, 2020, *Climate Action + Adaptation Plan*, November, available at https://www.longbeach.gov/lbds/planning/caap/, accessed October 2021; City of Long Beach.

Table C illustrates that with the CAAP Action consistency requirements included in the CAAP Checklist, new development would contribute nearly 22,000 $MTCO_2e$ of GHG emission reductions in 2030, representing 19 percent of the total reductions attributed to these five measures in the CAAP. Because new development only accounts for four percent of the total citywide service population in 2030, the 19% represents new developments' fair share contribution toward the CAAP's emission reduction estimates. In other words, on a per-SP basis, new development is achieving nearly *five times* more GHG emission reductions than existing development.

As discussed above, other quantified CAAP measures (T-4: Implement the Port of Long Beach Clean Air Action Plan; BE-6: Perform municipal energy and water audits; and BE-8: Identify and implement short-term measures to reduce emissions related to oil and gas extraction) would not apply to new development and their implementation would be independent of actions taken by new development.

CAAP Checklist Table 1, Step 3: #1. Zero-Carbon Electricity

This checklist item requires that new development use 100% carbon-free electricity for all electricity usage onsite. This can be achieved through onsite solar PV or other onsite renewable energy generation, through enrollment in SCE's Green Rate program (or other available carbon-free electricity service at the time of project application), or some combination of the two.

The CAAP does not calculate GHG emission reductions separately for existing development and new development, so the following modeling evaluation was performed.

The CAAP includes the following actions related to zero-carbon electricity for new development:

- **BE-1: Provide access to renewably generated electricity**. Explore and pursue various options to increase the community's access to renewable electricity that exceeds the State's Renewables Portfolio Standard in the near-term.

- **BE-2: Increase use of solar power**. Incentivize and facilitate an increase in solar power infrastructure installation and usage

- **BE-3: Promote community solar and microgrids**. Leverage partnerships and private developers to expand participation in community solar programs. Identify optimum locations and funding mechanisms for implementing microgrid pilot projects.

The CAAP calculated GHG emission reductions for BE-1 and BE-2 (no reductions were calculated for BE-3). For BE-1, the CAAP assumed that SCE would reduce the carbon intensity of their retail electricity supply by 80% by 2030. This would occur independent of City and project applicant action and would result in 169,921 $MTCO_2e$ of emission reductions. The CAAP 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 $MTCO_2e$ of emission reductions. The total citywide emission reduction for BE-1 is 188,963 $MTCO_2e$.

For BE-2, the CAAP 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. At the time the CAAP was prepared, the City of Long Beach had 1,469 roofs with solar PV installations. 5 percent coverage would result in in 3,131 new solar PV installations. The CAAP used an average system size of 6.8 kW DC and an average annual generation of 10,400 kilowatt hours (kWh). All data and factors in this calculation was based on Google's Project Sunroof dashboard.[19] The total citywide emission reduction for BE-2 is 3,881 $MTCO_2e$.

Because checklist item #1 requires new development to source 100 percent of its electricity from carbon-free sources; whether from onsite solar (BE-2) or carbon-free electricity through SCE or possibly in the future through a Community Choice Aggregation program (BE-1), a separate emission reduction contribution analysis for each of these two CAAP measures for new development is not needed. Therefore, this document calculated reductions from the combination of BE-1 and BE-2 implemented for new development, as required by checklist item #1. The calculation steps are as follows:

1. The CAAP projects growth in electricity use from 2015-2030 as 19,970 MWh for residential development, 85,529 MWh for commercial development, and 153,269 MWh for industrial development.

2. For industrial electricity use, only light industrial uses were accounted for in this calculation (conservatively assuming heavy industry would be exempt from the measure due to potential infeasibility). It was assumed that 25% of total industrial development (and electricity use) would be due to light industrial uses, or 38,317 MWh.

3. Although this checklist item requires 100 percent carbon-free electricity, it was assumed that some new development would be exempt or there would be less than 100 percent compliance with this measure. It was conservatively assumed that 95% of all new electricity use associated with new residential, commercial, and light industrial development would be carbon-free. This amounts to 136,626 total MWh supplied by carbon-free sources.

4. The 2030 emission rate for SCE-provided electricity, after SCE reduces the carbon intensity of their retail electricity supply, is 0.1192 $MTCO_2e$ per MWh. By applying this rate to the total amount of carbon-free electricity provided through BE-1 and BE-2 for new development, the total emission reduction is 16,650 $MTCO_2e$.

The CAAP estimated that BE-1 and BE-2 combined would reduce emissions citywide by 192,840 $MTCO_2e$. 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 $MTCO_2e$. Based on the assumptions above for new development, the reduction for implementation of checklist item #1 would be 16,650 $MTCO_2e$. This represents 63 percent of the total citywide reduction for BE-1 and BE-2. Since electricity consumption associated with new

[19] Google, *Google Project Sunroof: Estimated rooftop solar potential of Long Beach, CA*, Last Updated November 2018, available at https://sunroof.withgoogle.com/data-explorer/place/ChIJWdeZQOjKwoARqo8qxPo6AKE/, accessed March 2022.

development represents only 8 percent of the City's total electricity consumption in 2030, the 63 percent value represents new developments' fair share contribution toward BE-1 and BE-2.

CAAP Checklist Table 1, Step 3: #5. 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) provide for the storage, collection, and loading of recyclables in a manner that is convenient for all users of the building; (2) make efforts to ensure that all project occupants and tenants will separate recyclables from all other refuse and place recyclables in a separate container designated for recycling; and (3) provide compliance data to the City as required for any current auditing program.

The CAAP does not calculate GHG emission reductions separately for existing development and new development, so the following modeling evaluation was performed.

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.** Adopt a mandatory commercial recycling ordinance that includes enforcement mechanisms to ensure that on-site recycling collection is provided at multifamily and commercial properties and that the City is in compliance with state laws.

The CAAP calculated GHG reductions for W-1 assuming 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 $MTCO_2e$ per ton, so the total reduction is 45,340 $MTCO_2e$.

GHG emission reductions associated with paper and carboard recycling for new development were calculated as follows:

1. The total tonnage of paper and carboard landfilling for new development was calculated by taking the growth in paper and carboard landfilling from 2015 to 2030; this value is 480 tons for multifamily development and 2,434 tons for commercial development.

2. It was assumed that new development could achieve slightly better diversion than existing development, given opportunities to educate new occupants and tenants about recycling and by providing new collection bins immediately. A reduction of 85 percent was selected for new development.

3. The total tonnage of paper and carboard landfilling reduced for new development was then calculated for both multifamily and commercial waste; this and amounts to 408 tons for multifamily and 2,069 tons commercial.

4. Using the average landfilling emission rate of 0.90 $MTCO_2e$ per ton, the GHG emission reduction is 370 $MTCO_2e$ for multifamily and 1,870 $MTCO_2e$ for commercial; the total reduction is 2,240 $MTCO_2e$

The CAAP estimated that W-1 would reduce emissions citywide by 45,335 $MTCO_2e$. 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 and represents a fair share.

CAAP Checklist Table 1, Step 3: #6. 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) provide for the storage, collection, and loading of recyclables and solid waste in a manner that is convenient for all users of the building; (2) make efforts to ensure that all project occupants and tenants will separate compostables from all other refuse and place compostables in a separate container designated for composting; and (3) provide compliance data to the City as required for any current auditing program.

The CAAP does not calculate GHG emission reductions separately for existing development and new development, so the following modeling evaluation was performed.

This checklist item addresses the following CAAP action:

- **W-2: Develop an organic waste collection program for City-serviced accounts.** Develop an organic waste collection program and educational campaign for properties serviced by the City to divert organic waste from landfills.

- **W-3: Partner with private waste haulers to expand organic waste collection community-wide.** Adopt a mandatory commercial and multifamily organic waste collection ordinance and partner with the City's franchise waste haulers to ensure organics collection service is provided community-wide.

The CAAP calculated GHG reductions for W-2 assuming a citywide reduction in landfilling of organics (food, park, and wood) 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 $MTCO_2e$ per ton for multifamily organics and 0.47 $MTCO_2e$ per ton for commercial organics, so the total reduction is 39,730 $MTCO_2e$.

GHG emission reductions associated with organics composting for new development were calculated as follows:

1. The total tonnage of organics landfilling for new development was calculated by taking the growth in organics landfilling from 2015 to 2030; this value is 832 tons for multifamily development and 5,870 tons for commercial development.

2. It was assumed that new development could achieve slightly better diversion than existing development, given opportunities to educate new occupants and tenants about recycling and by providing new collection bins immediately. A reduction of 85 percent was selected for new development.

3. The total tonnage of organics landfilling reduced for new development was then calculated for both multifamily and commercial waste; this and amounts to 707 tons for multifamily and 3,488 tons commercial.

4. Using the average landfilling emission rate of 0.44 $MTCO_2e$ per ton for multifamily organics and 0.47 $MTCO_2e$ per ton for commercial organics, the GHG emission reduction is 310 $MTCO_2e$ for multifamily and 1,650 $MTCO_2e$ for commercial; the total reduction is 1,960 $MTCO_2e$

The CAAP estimated that W-2 would reduce emissions citywide by 39,734 $MTCO_2e$. The contribution from new development would therefore represent 4.9 percent of the total citywide reduction for W-2. 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, representing a fair share.

CAAP Checklist Table 1, Step 3: #9. Trip Reduction Features to Reduce Vehicle Miles Travelled

This checklist item requires that new development achieve a five 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 TDM plan.

The CAAP does not calculate GHG emission reductions separately for existing development and new development, so the following modeling evaluation was performed.

This checklist item addresses the following CAAP action:

- **T-1: Increase frequency, speed, connectivity, and safety of transit options**. Continue development and implementation of additional water use efficiency and conservation programs to help reduce water use.

The CAAP calculated GHG emission reductions for T-1 assuming a citywide reduction in light-duty VMT of one percent. This would be a result of 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 existing 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 five 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.

GHG emission reductions associated with a five percent reduction in VMT from new development were calculated as follows:

1. The CAAP projects that in 2030, the average daily light-duty VMT per service population would be 11.0 miles. This actually represents a 17 percent reduction in the 2015 value of 13.2 daily light-duty VMT per service population based on a variety of factors and regulations including the RTP/SCS.

2. It was assumed that new development would already be more efficient than existing development for transportation. Using compliance with the City's TIA Guidelines document as a proxy, on average, new development would result in 15 percent less VMT per service population than existing development. This means that new development would have to achieve a value of 9.4 daily light-duty VMT per service population (on average).

3. Based on this, new development from 2015 to 2030 would produce approximately 266,000 daily VMT (9.4 multiplied by 28,408 new service population).

4. A five percent reduction in 266,000 daily VMT is equal to approximately 13,000 daily VMT. The BAU emission rate for light-duty vehicles is 214.78 grams CO_2e per VMT. Therefore, a five percent reduction in VMT for new development would result in 990 $MTCO_2e$ of emission reductions.

The CAAP estimated that T-1 would reduce emissions citywide by 5,230 $MTCO_2e$. 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 value represents new developments' fair share contribution toward T-1.

It should also be noted that the CAAP's BAU emissions forecast for the on-road transportation sector indicates that citywide light-duty vehicle VMT would decline by 15 percent from the 2015 baseline year value of 8.2 million daily VMT to the 2030 target year value of 7.2 million daily VMT. The BAU forecast was prepared using VMT projections from the SCAG 2012 RTP/SCS Regional Travel Demand model, as discussed above in the *Modeling Methods for Vehicle Miles Traveled* section below. The SCAG model assumes implementation of the 2012 RTP/SCS, which includes numerous transportation investments and improvements such as new bus rapid transit routes and extensions, new light rail routes and extensions, new and expanded bus service, Metrolink extensions of commuter rail, various active transportation strategies such as increasing

bikeways, various TDM strategies to reduce solo driving, high-occupancy vehicle lane network expansions, and many others.[20] This means that new development would have to do more than achieve a five percent reduction in vehicle trips and VMT in order to be consistent with the SCAG 2012 RTP/SCS, and the additional reductions quantified for the CAAP.

Modeling Methods for Vehicle Miles Traveled

After the modeling for the CAAP was conducted, the City adopted the Land Use Element (LUE) update (December 2019) and the Traffic Impact Analysis (TIA) Guidelines (June 2020). Both the LUE and TIA rely on updated socioeconomic projections and updated SCAG Regional Travel Demand modeling when compared to the CAAP due to when the analysis work was completed. Specifically, the CAAP relied on the SCAG 2012 RTP/SCS,[21] which was the most updated available data at the time the analysis was done, while both the 2019 LUE and the 2020 TIA Guidelines relied on SCAG's 2016 RTP/SCS.[22]

In order to demonstrate that these differences in available data sources would not inhibit the CAAP from achieving its 2030 GHG reduction targets, a modeling exercise was conducted. Data from the transportation modeling conducted for the 2019 LUE shows that total citywide daily vehicle miles traveled (VMT) would be 9.2 million compared to the CAAP's value of 8.0 million. This represents a 15 percent increase in VMT when comparing the 2019 LUE with the CAAP, and a 14 percent increase in daily VMT per service population (12.8 vs. 11.0). If the CAAP were updated using the 2019 LUE's VMT data and the same on-road vehicle emission factors from the CAAP, total 2030 emissions would increase by 42,000 $MTCO_2e$. This would increase the GHG emission reductions needed to achieve the CAAP's target of 1,984,272 $MTCO_2e$ from 192,659 $MTCO_2e$ to 234,214 $MTCO_2e$. Because the CAAP achieves total reductions of 393,250 $MTCO_2e$, the target would still be achieved with 129,000 $MTCO_2e$ to spare.

Therefore, the difference in modeling methods between the 2019 LUE and the CAAP does not hinder the CAAP's ability to achieve the citywide GHG emissions reduction target.

It should also be noted that the VMT modeling conducted for the 2020 TIA Guidelines also relies on different modeling methods than the CAAP uses to estimate light-duty VMT and associated mobile source emissions. The 2020 TIA Guidelines used a "home-based trip" approach to model regional average light-duty VMT per capita for Los Angeles County and a "work-based trip" approach to model regional average light-duty VMT per employee for Los Angeles County. This means all trips originating from home or work are captured in the model, which represents travel associated with a specific land use type (like residential or office). These values are 13.9 daily light-duty VMT per capita (home-based) and 18.0 daily light-duty VMT per employee (work-based). These regional average values are used as thresholds for analyzing new project VMT generation (e.g., for new residential projects, 15 percent below the regional average VMT per

[20] Southern California Association of Governments, *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy*, April 2012, available at http://libraryarchives.metro.net/DPGTL/scag/2012-2035-regional-transportation-plan.pdf, accessed December 2021.

[21] For more information, see https://scag.ca.gov/trip-based-model

[22] Southern California Association Of Governments, *SCAG Regional Travel Demand Model And 2012 Model Validation*, March 2016, available at https://scag.ca.gov/sites/main/files/file-attachments/scag_rtdm_2012modelvalidation.pdf?1605571641, accessed December 2021.

capita value of 13.9 [11.8], would constitute a less-than-significant transportation impact under CEQA).

The CAAP's VMT modeling is based on a total trip generation approach using the origin-destination method embodied in the SCAG model. This approach accounts for all trip types that residents, employees, and customers take within the City, and includes all trips with an origin and/or a destination within City boundaries. This is the standard modeling approach conducted for citywide GHG inventories and climate action plans, as recommended by accepted community GHG inventory protocols including the ICLEI U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions and the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories.[23,24] This differs from the TIA modeling which accounts for land-use driven trips such as home-based and work-based trips.

Although the TIA applied the results from a different base year model than the CAAP, the ability of the CAAP to achieve it's 2030 target emissions level is not compromised by this difference. This is because the CAAP continues to account for all travel and network effects in the city to generate emissions and reductions, while the TIA was focused on the effects of specific land use types on VMT. Projects would also have to comply with both the TIA guidelines and the CAAP Checklist to have a less-than-significant impact on transportation and climate change under CEQA.

Tier 1 Measures: Qualitative Consistency Requirements

This section addresses each required Tier 1 CAAP consistency checklist item for new development that relates to a CAAP action that was not quantified for GHG emission reductions in the CAAP. These items are mandatory for all projects. For each checklist item listed below, this document provides the basis behind the requirements for new development.

CAAP Checklist Table 1, Step 3: #2. MUNICIPAL PROJECTS ONLY: Reduce Energy Use and Supply the Project with Renewable Electricity

This checklist item only applies to municipal projects. The CAAP calculated GHG emission reductions for municipal energy sources associated with energy efficiency, solar PV installations, and carbon-free electricity purchases. The CAAP does not calculate GHG emission reductions separately for existing municipal facilities and new municipal facilities.

This checklist item addresses the following CAAP action:

- **BE-6: Perform municipal energy and water audits**. Establish a municipal building/facility energy and water audit program, establish targets for decreasing annual energy use, and track progress.

[23] ICLEI – Local Governments for Sustainability USA, 2019, *U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions*, Version 1.2, available at https://icleiusa.org/us-community-protocol/

[24] World Resources Institute, C40 Cities Climate Leadership Group and ICLEI – Local Governments for Sustainability USA, 2021, *Global Protocol for Community-Scale Greenhouse Gas Emission Inventories*, Version 1.1, available at https://ghgprotocol.org/greenhouse-gas-protocol-accounting-reporting-standard-cities.

The CAAP calculated emission reductions associated with energy efficiency for Street and Park Lights and window efficiency at the Houghton Community Center. To ensure consistency with this, the CAAP checklist requires that all new municipal projects incorporate energy efficiency design features to reduce electricity and natural gas energy use beyond Title 24 Building Energy requirements.

The CAAP calculated emission reductions for solar PV installations based on PV systems installed at 13 City facilities[25] for a total of 8,834 kW of solar capacity installed. To ensure consistency with this, the CAAP checklist requires that all new municipal projects must install on-site renewable energy systems, such as rooftop solar PV.

For carbon-free electricity purchases, the CAAP assumed that 100% of electricity used for buildings and facilities, street lights & traffic signals, and water & wastewater would be supplied from carbon-free sources. To ensure consistency with this, the CAAP checklist requires that all new municipal projects participate in Southern California Edison's Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until which time SCE provides 100% carbon-free electricity for all accounts by default.

These requirements ensure that all new municipal projects would be consistent with CAAP Action BE-6.

CAAP Checklist Table 1, Step 3: #3. Comply with all City building energy codes and ordinances

All projects must comply with all applicable City building energy codes and ordinances at the time of project approval. This includes, but is not limited to, any requirements for electrification, energy use intensity factors, zero-net-energy construction, CalGreen Tier 2 or other energy measures, or LEED requirements. All projects must comply with these requirements as a matter of City and State building code. These are standard requirements independent of the CAAP.

This checklist item addresses the following CAAP action:

- **BE-7: Update building codes to reduce emissions in new residential and commercial buildings**. Identify and implement building energy code options to establish incentives and/or requirements for all electric residential and commercial buildings.

Supporting actions in the CAAP for BE-7 include:

- BE-7.1: Evaluate a range of reach code components that incentivize between 50 and 100 percent of all new commercial and residential buildings to be 100 percent electric, and conduct an analysis of the cost-effectiveness of various measures.

- BE-7.2: Establish an outreach strategy to engage stakeholders in reach code development.

[25] Facilities include ECOC, Main Health Dept. Building, Public Works Yard, East Division Police Sub-Station, LBGO Headquarters, Airport Parking Garage (Lot B), City Place Lot A, City Place Lot B, City Place Lot C, Pike Parking Structure, Aquarium Parking Structure, Convention Center, and Pier A West.

The CAAP does not quantify the benefits of a reach code or require that new development comply with such reach code. However, should the city adopt a reach code in the future, all new development would be required to comply with the reach code once it is in effect.

CAAP Checklist Table 1, Step 3: #10. Incorporate Pedestrian Infrastructure

This checklist item requires that new development incorporate pedestrian infrastructure into its design. Specifically, the project must provide pedestrian facilities and connections to public transportation consistent with the City's Mobility Element, CX3 Pedestrian Plan, and any other relevant governing plan. The project must also incorporate additional pedestrian infrastructure, as detailed in the CAAP Checklist. The CAAP did not specifically quantify emission reductions for these actions though the reduction in VMT attributed to action T-1 is supported by these actions.

This checklist item addresses the following CAAP action:

- **T-2: Expand/improve pedestrian infrastructure citywide**. Ensure safe and convenient pedestrian infrastructure is provided citywide, including uninterrupted sidewalk connections, adequate lighting and visibility, shading, and safe intersections.

CAAP Checklist Table 1, Step 3: #11. Incorporate Bicycle Infrastructure

This checklist item requires that new development incorporate bicycle infrastructure into its design. Specifically, the project must provide bicycle facilities consistent with the City's Mobility Element, Bicycle Master Plan, Urban Design Element, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen. The project must also incorporate additional bicycle infrastructure, as detailed in the CAAP Checklist. The CAAP did not specifically quantify emission reductions for these actions, though the reduction in VMT attributed to action T-1 is supported by these actions.

This checklist item addresses the following CAAP action:

- **T-3: Increase bikeway infrastructure**. Expand the bikeway system and associated infrastructure throughout the city in order to encourage safe and convenient use of active and sustainable travel modes.

CAAP Checklist Table 1, Step 3: #12. Incorporate Electric Vehicle Charging Infrastructure

All projects must comply with any City ordinance, building code, or condition of approval that requires a certain amount of EV charging infrastructure and readiness. This may include minimum requirements for EV charging stations, EV-capable parking spaces, and EV-ready parking spaces. The CAAP did not quantify emission reductions for these actions.

This checklist item addresses the following CAAP action:

- **T-5: Develop an Electric Vehicle Infrastructure Master Plan**. Develop an EV infrastructure plan that aligns with county-wide efforts to guide investment and policy

decisions that will result in a distributed network of EV chargers to incentivize and facilitate EV ownership and use.

CAAP Checklist Table 1, Step 3: #13. Comply with City TDM Ordinance

This checklist item requires that all new projects comply with the City's TDM ordinance at the time of project approval. This may include preferential carpool/vanpool parking, bicycle parking, and shower facilities and locker rooms; trip reduction plans; transit-supportive infrastructure development; and similar strategies. The project must comply with any applicable VMT reduction target and incorporate any required monitoring mechanisms for development, subject to the ordinance.

This checklist item addresses the following CAAP action:

- **T-7: Update the Transportation Demand Management Ordinance**. Update and implement a transportation demand management (TDM) ordinance that encourages travel by transit, vanpool/carpool, and bicycle.

CAAP Checklist Table 1, Step 3: #14. Comply with the City's Transportation Impact Guidelines

This checklist item requires that all projects comply with the City's current TIA Guidelines. Projects may screen out if they meet certain criteria, such as being located in a transit priority area or local-serving retail development less than 50,000 square feet. Projects that don't screen out of the Transportation Screening Criteria must meet the VMT efficiency metrics identified by the TIA Guidelines (e.g., 11.8 daily VMT per capita for residential projects and 18.0 daily VMT per capita for office projects). The CAAP did not quantify emission reductions for these actions.

This checklist item addresses the following CAAP action:

- **T-9: Integrate SB 743 planning with CAAP process**. Evaluate the effectiveness of VMT reductions resulting from SB 743 compliance in achieving the City's GHG reduction target.

Tier 2 Measures: Qualitative Consistency Requirements

This section addresses each encouraged Tier 2 CAAP consistency checklist item for new development that relates to a CAAP action that was not quantified for GHG emission reductions in the CAAP. These items are encouraged for all projects as feasible. For each checklist item listed below, this document provides the basis behind the recommendations for new development.

CAAP Checklist Table 1, Step 3: #4. Building Energy Efficiency

This checklist item only applies only to projects that include a retrofit of an existing building. All projects are encouraged to incorporate energy efficiency measures into their design, which can reduce carbon emissions while also reducing future operational costs. The CAAP Checklist includes a number of items, including energy audits and benchmarking, CalGreen Tier 2 or voluntary building energy measures, electrification, the use of efficient appliances, energy

efficiency retrofits, and net-zero energy. The CAAP did not quantify emission reductions for these actions.

This checklist item addresses the following CAAP actions:

- **BE-4: Develop a residential and commercial energy assessment and benchmarking program.** Develop an energy assessment and benchmarking program for commercial and residential properties to identify opportunities for energy efficiency and evaluate options to increase energy efficiency retrofits.

- **BE-5: Provide access to energy efficiency financing, rebates, and incentives for building owners**. Identify funding sources to increase energy efficiency improvements in the community's existing building stock and develop an outreach strategy to promote opportunities to all segments of the community.

CAAP Checklist Table 1, Step 3: #7. Incorporate On-site Composting, Mulching, and/or Anaerobic Digestion

This checklist item encourages projects to incorporate organic waste processing capabilities, such as composting, mulching, and anaerobic digestion facilities (where applicable), and to collaborate with agencies to share organic processing information with interested parties. The CAAP did not quantify emission reductions for these actions.

This checklist item addresses the following CAAP action:

- **W-4: Identify organic waste management options.** Evaluate organic waste collection and processing options, including composting, mulching, and anaerobic digestion, and develop a plan to implement feasible options.

CAAP Checklist Table 1, Step 3: #8. Meets Transportation Screening Criteria

This item is discussed above in the *Transportation Screening Criteria* section above (Step 2). As discussed above, these screening criteria represent characteristics that are desirable from a GHG emission reduction perspective, as envisioned by the CAAP. Projects that meet these criteria are assumed to result in reduced transportation activity and significantly lower mobile source GHG emissions than the citywide average development and would therefore be consistent with the CAAP's transportation actions.

CAAP Checklist Table 1, Step 3: #15. High-Density, Mixed-Use, Transit-Oriented, Walkable Infill Project Design

This checklist item encourages projects to be located in a transit priority area or transit corridor, include local-serving retail, include affordable housing, include a mix of uses, and include shared and reduced parking strategies, among other items. The CAAP did not quantify emission reductions for these actions.

This checklist item addresses the following CAAP actions:

- **T-6: Increase employment and residential development along primary transit corridors**. Identify land use and/or zoning changes to expand TOD opportunities along the city's primary transit corridors. Pursue strategies to increase affordable housing in these areas.

- **T-8: Update the Transportation Demand Management Ordinance**. Use the City's land use authority to increase development density particularly near transit, and provide a mix of land uses, such that residents and employees in the city can easily access goods, services, and entertainment via transit or active transportation modes.

All projects must also achieve a five percent reduction in vehicle trips and VMT compared to the project without such vehicle trip reduction features (CAAP Checklist item #9), incorporate electric vehicle charging infrastructure, comply with the City's TDM ordinance, and comply with the City's current TIA Guidelines.

Other CAAP Actions Not Applicable to New Development

The CAAP included two quantified actions that would not apply to new development:

- **BE-8: Identify and implement short-term measures to reduce emissions related to oil and gas extraction**. Implement the suite of near-term measures included in the CAAP Oil and Gas Technical Memorandum to reduce oil and gas extraction emissions per the memorandum.

- **T-4: Implement the Port of Long Beach Clean Air Action Plan.** Implement the Port of Long Beach Clean Trucks Program, which is described in the San Pedro Bay Ports Clean Air Action Plan, to reduce the GHG emissions associated with goods movement through trucks serving the Port of Los Angeles and Port of Long Beach.

New projects would not have to comply with these CAAP actions because they are not directed at discretionary projects. Action BE-8 applies to oil and gas extraction operations while action T-4 applies to the Port of Long Beach's operational activities.

Step 4: Identify Alternative Project Emission Reduction Measures and Additional GHG Reductions

Projects that propose alternative GHG emission reduction measures to those identified in Step 3 above (CAAP Checklist Table 1) or propose to include additional GHG emission reduction measures beyond those described in Step 3 above shall provide a summary explanation of the proposed measures and demonstrate GHG reductions achievable though the proposed measures. These alternative or additional project measures shall be documented in CAAP Checklist Table 2. This process represents **Step 4** of the CAAP Checklist.

Alternative actions must be additional beyond anything quantified for GHG emission reductions in the CAAP and must be additional to any requirements at the federal, state, regional, or local level. These actions must be physical design features to be included on the project plans and/or construction contracts. All alternative actions must be real, permanent, quantifiable, verifiable,

enforceable, and additional.[26] All alternative actions must achieve the same or greater level of GHG emission reductions as the required Tier 1 CAAP Action(s) that they are replacing. This will ensure that projects which cannot (or choose not to) comply with certain Tier 1 CAAP Actions will still be consistent with the CAAP's target emissions level for new development and would not inhibit the CAAP from achieving its citywide emission reduction target for 2030.

For each alternative measure proposed, the project must quantitatively demonstrate the effectiveness of the proposed measure to reduce the project's GHG emissions. This includes supporting quantification documentation (such as Microsoft Excel and CalEEMod modeling files), assumptions, and reference material. The GHG emission reduction analysis must be consistent with all CEQA guidelines and standard practice for modeling GHG emissions for new development measures and actions. All documentation submitted by the project applicant for alternative actions is subject to city verification and approval.

At this time, carbon offset credits are not permitted to be used as alternative project emission reduction measures. The city retains discretion to permit carbon offset credits in the future.

Step 5: Demonstrate consistency with the CAAP Adaptation Actions

Projects must demonstrate consistency with the CAAP Adaptation Action requirements (CAAP Checklist Table 3) or document why the actions are not applicable or are infeasible. This represents **Step 5** of the CAAP Checklist.

All Adaptation Actions are encouraged to be incorporated into future discretionary projects, as applicable. However, many of these actions may be implemented by the City or other agencies and may not all be subject to CEQA. 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.

CAAP Checklist Table 3: #1. Incorporate Cool Roofs, Cool Walls, Reflective Streets, Cool Surfaces, and Shade Canopies

This checklist item addresses the following CAAP actions:

- **EH-1: Increase Presence of Cool Roofs and Cool Walls.** Increase the installation of cool roofs and cool walls to keep buildings and neighborhoods cooler.
- **EH-2: Increase the Presence of Reflective Streets, Cool Surfaces, and Shade Canopies**. Treat paved surfaces such as streets, parking lots, and playgrounds with reflective surfaces and install shade canopies to reduce urban heat.

[26] Definitions for these terms are generally as set forth in both subdivisions (d)(1) and (d)(2) of California Health and Safety Code §38562.

CAAP Checklist Table 3: 2. Incorporate Tree Plantings and Expands Urban Forest Cover

This checklist item addresses the following CAAP actions:

- **EH-3: Enhance and Expand Urban Forest Cover and Vegetation**. Expand and enhance urban forest cover and vegetation to mitigate urban heat island conditions.

CAAP Checklist Table 3: 3. Incorporate Bus Shelter Amenities

This checklist item addresses the following CAAP actions:

- **EH-7: Provide Bus Shelter Amenities.** Provide more bus shelter amenities to help prevent health effects from long sun exposure and to incentivize usage of public transportation.

CAAP Checklist Table 3: 4. Install Photocatalytic Tiles

This checklist item addresses the following CAAP actions:

- **AQ-1: Incentivize Installation of Photocatalytic Tiles.** Support the installation of photocatalytic tiles to improve air quality.

CAAP Checklist Table 3: 5. Include Urban Agriculture

This checklist item addresses the following CAAP actions:

- **AQ-2: Encourage Urban Agriculture Practices that Reduce Air Quality Pollution.** Continue to incentivize urban agriculture practices and projects in community and home gardens that increase local food production and reduce air quality impacts from food transportation.

CAAP Checklist Table 3: 6. Use Electric Lawn and Garden Equipment, Outdoor Power Equipment, and Other Small Equipment

This checklist item addresses the following CAAP actions:

- **AQ-4: Electrify Small Local Emitters, Such as Lawn and Garden Equipment, Outdoor Power Equipment, and Others.** Support the replacement of small, fossil-fuel-powered engine equipment with electric-powered equipment.

CAAP Checklist Table 3: 7. Implement Water Use Efficiency and Water Conservation

This checklist item addresses the following CAAP actions:

- **DRT-1: Continue Development And Implementation Of Water Use Efficiency Programs And Implement Additional Water Conservation Programs.** Continue development and implementation of additional water use efficiency and conservation programs to help reduce water use.

CAAP Checklist Table 3: 8. Incorporate Green Infrastructure and Green Streets

This checklist item addresses the following CAAP actions:

- **DRT-3: Expand Usage of Green Infrastructure And Green Streets.** Incorporate green infrastructure and green streets to diversify water supply, increase natural and stormwater capture, prevent urban runoff, reduce the demand on existing infrastructure, reduce the heat island effect, and increase sustainability and resiliency.

CAAP Checklist Table 3: 9. Use Recycled Water and Greywater for Non-Potable Uses; includes Rainfall Capture

This checklist item addresses the following CAAP actions:

- **DRT-4: Expand Usage of Recycled Water and Greywater for Non-Potable Use.** Increase and incentivize recycled water and greywater use to establish a more diverse water supply portfolio.

- **DRT-5: Incorporate Increased Rainfall Capture and Other Actions to Maximize Local Water Supplies and Offset Imported Water.** Increase and incentivize rainfall capture and other actions to establish a more diverse water supply portfolio and maximize local water supplies from stormwater capture, recycled water, and groundwater.

CAAP Checklist Table 3: 10. Comply with all City Floodplain and Sea Level Rise Regulations

This checklist item addresses the following CAAP actions

- **FLD-1: Update and Augment Floodplain Regulations as Necessary.** Update and augment floodplain regulations as necessary to limit, elevate, or provide floodproofing standards for development in areas designated as vulnerable to flooding in order to minimize physical damage to development.

- **FLD-2: Incorporate Sea Level Rise Language into Citywide Plans, Policies, and Regulations**. Incorporate sea level rise adaptation into relevant plans, policies, and regulations (e.g., the General Plan, neighborhood plans, Local Coastal Program, design standards for capital projects)

CAAP Checklist Table 3: 11. Comply with the City's Current Stormwater Management Plan

This checklist item addresses the following CAAP actions:

- **FLD-5: Update the City's Existing Stormwater Management Plan.** Update the City's existing Stormwater Management Plan to account for flood risks associated with climate change and develop a funding/implementation plan for fully fund storm drain and pump station improvements.

CAAP Checklist Table 3: 12. Ensure that all critical infrastructure in the sea level rise vulnerability zone is elevated

This checklist item addresses the following CAAP actions:

- **FLD-10: Relocate/Elevate Critical Infrastructure.** Carry out more detailed studies to assess the need to raise or relocate critical infrastructure outside of the sea level rise vulnerability zone.

CAAP Checklist Table 3: 13. Elevate Street Hardscapes and Waterfront Streets and Paths

This checklist item addresses the following CAAP actions:

- **FLD-14: Elevate street hardscapes.** Street hardscapes such as curbs could be elevated and extended to eliminate gaps that could become flood pathways.

- **FLD-15: Elevate streets/pathways.** Waterfront streets and paths may need to be elevated to protect transportation routes and provide flood protection for infrastructure behind the road/path.