

5.3.5 Greenhouse Gas Emissions and Climate Change

This section describes the methodology, assumptions, and results to identify potentially significant impacts to global climate change with the implementation of the Kings Beach State Recreation Area General Plan Revision and Pier Rebuild Project alternatives. The analysis includes a quantitative evaluation of construction- and operational-generated emissions of greenhouse gas emissions (GHGs). The effects resulting from General Plan implementation under all of the alternatives described herein would be the same regardless of ownership of the Plaza parcels.

The existing conditions and significant resource values related to global climate change are summarized under the header Climate in Section 2.2.1, Physical Resources, in Chapter 2, Existing Conditions, of this document. A more detailed description of the existing climate conditions at the project site and a summary of pertinent regulations are included in the Resources Inventory and Existing Conditions Report, available on the KBSRA webpage (www.parks.ca.gov/PlanKBSRA) and at CSP and TRPA offices during normal business hours through consideration of project approval. Relevant project goals and guidelines are summarized under the header Sustainability and Climate Change in Section 4.4.1, Resource Management and Protection, in Chapter 4, The Plan. CSP Standard and Special Project Requirements pertaining to air quality, which would also reduce GHGs, are included in Section 4.7, CSP Standard and Special Project Requirements; these requirements include standard construction equipment measures, as well as use of alternative fuel in vehicles and equipment for park operations (where feasible), the design and retrofit of facilities to maximize energy efficiency, and installation and use of distributed renewable energy generation systems (such as small solar power systems). Other sustainability goals and guidelines in Chapter 4, The Plan, would be implemented as part of project operations.

Environmental Impacts and Mitigation Measures

Analysis Methodology

Construction

Short-term construction-related emissions of GHGs were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.1 computer program (California Air Pollution Control Officers Association [CAPCOA] 2016). CalEEMod was used to calculate the construction of the pier in the eastern pier alternative (Alternative 2) and the related facilities (i.e., new and expanded bathrooms and administrative building) anticipated to be built out over the 20-year lifetime of the project. Modeling was based on project-specific information (e.g., schedule, building type, area to be paved), where available, and default values in CalEEMod that are based on the project's location, land use type, and type of construction. Due to the inherent uncertainty surrounding the timing of construction of facilities unrelated to the construction of the pier, all construction activities were assumed to occur over the course of the anticipated 3-year pier construction commencing in May of 2019 to demonstrate a more conservative estimate and in consideration of construction limitations in the Tahoe Basin. Due to the similar characteristics of the project alternatives, a qualitative discussion of the construction-related impacts to Alternative 1, 3, and 4 are included.

Operation

Long-term operational emissions were also calculated using CalEEMod Version 2016.3.1 using project specific data where available. Based on the three-year construction period anticipated for the proposed pier, 2021 was assumed for the first year of operation. To provide a more conservative estimate, operations of General Plan-related facilities (e.g., administrative office, park facilities) to be built out

over the course of the project's 20-year horizon were incorporated into the model for 2021, although construction and operation of these facilities may be built out as late as 2037. By including the emissions associated with project-related facilities for the year 2021, estimates of operational emissions are more conservative than would be estimated for 2037 due to improved technological efficiency and deployment of existing and future GHG-reducing regulations and policies.

Direct operational mobile-source emissions were modeled based on trip generation rates and vehicle miles traveled (VMT) identified in the traffic analysis conducted for the project (see Section 5.3.13, Transportation and Circulation). The project would result in an estimated increase in 222 additional daily vehicle trips on a peak summer day. Using the average tourist trip length of 8.67 miles identified in the TRPA travel demand forecasting model, the project would result in an estimated increase in 1,925 daily VMT on a peak summer day. According to visitation data compiled from 2006 to 2016, visits to the project area are highest in July and substantially lessen during off-season months (i.e., spring, fall, and winter). Based on these data, visits in July represent 453 percent increase from total annual visits averaged over 12 months. Using this same trend, annual VMT was determined to be 155,105. See the technical analysis materials on the project webpage (www.parks.ca.gov/PlanKBSRA) for more details regarding assumptions and calculations.

Indirect emissions associated with electricity and natural gas consumption by Liberty Utilities were modeled using the non-baseload intensity factor values for the WECC California (CAMX) region in EPA's eGRID2014v2 (EPA 2014). The project's level of electricity usage was based on default consumption rates provided in CalEEMod for similar land use types. CalEEMod estimates electricity consumption based on implementation of the 2013 Title 24 regulations. Indirect emissions related to the treatment of water and wastewater were also calculated in CalEEMod using the water and wastewater generation values detailed in Section 5.3.10, Public Services and Utilities, of 714,120 gallons per year and 225,500 gallons per year, respectively. Indirect emissions from solid waste disposal were estimated using CalEEMod defaults for the project area.

Implementation of the pier rebuild component of Alternatives 2, 3, and 4 may also result in localized changes in watercraft activity but would not change overall motorized watercraft activity and related emissions on Lake Tahoe because none of the alternatives would add additional overnight mooring or additional motorized boat access points. Further, emissions for motorized watercraft on Lake Tahoe would decrease over time due to fleet turnover and increasingly stringent California and federal emission standards for recreation watercraft. Consequently, emissions from motorized watercraft were not modeled.

Specific model assumptions and inputs for all of these calculations can be found in the technical analysis materials available on the project webpage (www.parks.ca.gov/PlanKBSRA).

Significance Criteria

Significance criteria for determining impacts to global climate change are summarized below.

CEQA Criteria

The issue of global climate change is inherently a cumulative issue, as the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the project's impact to climate change is inherently a cumulative impact.

CEQA Guidelines Section 15064 and relevant portions of CEQA Guidelines Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans, and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. In Appendix G

of the State CEQA Guidelines, two questions are provided to help assess if the project would result in a potentially significant impact on climate change. These questions ask whether the project would:

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

On October 13, 2016, the Placer County Air Pollution District (PCAPCD) adopted new thresholds of significance for GHG emissions. Development of the new thresholds included evaluation of existing thresholds from other air districts such as Sacramento Metropolitan Air Quality Management District, San Luis Obispo Air Pollution Control District, and the Bay Area Air Quality Management District. The thresholds consider (1) existing GHG significance thresholds adopted by other districts, (2) PCAPCD's historical CEQA review data, (3) the statewide GHG emissions reduction target and regulation requirement beyond 2020, and (4) the special geographic features in Placer County (PCAPCD 2016). Based on Appendix G of the State CEQA Guidelines and PCAPCD thresholds of significance for construction- and operational-related emissions of GHGs, impacts to global climate change would be significant if the project would:

- ◆ generate construction emissions exceeding 10,000 metric tons of carbon dioxide equivalent per year (MT CO₂e/year),
- ◆ generate operational emissions that would exceed the Efficiency Matrix of 27.3 metric tons of CO₂e per capita (applicable to non-residential in rural areas) which exceed the De Minimis level, and
- ◆ generate operational emissions of the De Minimis level of 1,100 MT CO₂e/year.

The 1,100 MT CO₂e De Minimis Level significance threshold was developed to encompass the operational emissions of smaller land use projects that may be proposed in rural areas but are subject to CEQA review. The 1,100 MT CO₂e threshold is derived from consideration of other air districts and the goal of achieving 1990 levels of GHGs by 2020; PCAPCD uses this threshold as a measure of compliance with post-2020 GHG reduction goals (40 percent of 1990 levels by 2030). Given that the project has a 20-year lifetime and will extend to 2037, a modified bright line threshold will be used to reflect post-2020 and post-2030 GHG reduction considerations. As discussed in Section 4.4 of the Existing Conditions Report, Executive Order S-3-05 established benchmark GHG reduction goals extending to 2050 of an 80 percent reduction in 1990 GHG levels by that year. In line with this goal, a 50 percent reduction will be applied to PCAPCD's De Minimis threshold of 1,100 MT CO₂e/year to demonstrate consistency with this goal. Given that PCAPCD's threshold was developed to show consistency with a 40 percent reduction in statewide levels of GHGs, a 50 percent reduction of this number would be appropriate to demonstrate an overall 80 percent reduction.

As such, for the purposes of this analysis, the project's contribution would be significant to global climate change if the project would:

- ◆ generate operational emissions of 550 MT CO₂e/year.

TRPA Criteria

The TRPA Initial Environmental Checklist does not include any significance criteria for global climate change. As such, the CEQA Criteria described above will be applied to the project.

Environmental Impacts

Impact 5.3.5-1: Direct and indirect short-term construction-generated and long-term operational-related emissions of GHGs

The short-term construction-generated and long-term operational-related emissions of GHGs associated with Alternatives 2 through 4 would not exceed the PCPACD’s threshold of significance of 10,000 MT CO₂e for construction and 550 MT CO₂e for operational-related emissions. As such, Alternatives 3 through 4 would not result in a cumulatively considerable contribution to climate change. This would be a **less-than-significant** impact.

Alternative 1 would be a continuation of existing conditions and no increase in GHGs emissions would occur. There would **no impact**.

Alternative 1: No Project

General Plan Revision/Pier Rebuild Project

Alternative 1 would involve no physical improvements or changes to the project site or any substantial changes in management approaches. Existing operation and maintenance of the existing facilities on the project site would continue. As such, no construction-related activities would occur on the project site as a result of implementation of Alternative 1. There would be no short-term, construction-generated emissions of GHGs associated with Alternative 1. Further, existing operational GHG emissions would continue to be emitted and would not increase beyond baseline conditions. There would be **no impact**.

Alternative 2: Eastern Pier Alternative (Proposed Project)

General Plan Revision

The project would involve upland improvements that could result in the generation of air emissions, such as construction of new restroom facilities, administrative office, promenade and sand wall, and reconfigured parking lots. Both project construction and operation would generate GHG emissions. GHG-producing construction activities would include the operation of heavy-duty equipment (e.g., scrapers, cranes, forklifts) used during site preparation, haul trucks carrying supplies and materials to and from the project site, and construction worker commute trips. As described above, construction-generated GHG emissions were calculated using CalEEMod version 2016.3.1. Construction-related emissions of GHGs are summarized in Table 5.3.5-1 below for the years 2019-2021.

Year	MT CO ₂ e/year
2019	127
2020	500
2021	517
PCAPCD Thresholds of Significance	10,000
Exceeds Thresholds?	No

Notes: See the technical analysis materials on the project webpage (www.parks.ca.gov/PlanKBSRA) for detail on model inputs, assumptions, and project specific modeling parameters.
 GHGs = greenhouse gases, MT CO₂e/year = metric tons of carbon dioxide equivalent per year, PCAPCD = Placer County Air Pollution Control District

¹ Construction emissions account for construction of General Plan-related facilities and the proposed eastern pier.
 Source: Modeling conducted by Ascent Environmental in 2017 based on using CalEEMod v. 2016.3.1.

As shown above, construction-generated GHG emissions would peak in 2021 at 517 MT CO₂e/year. This level of emissions would not be substantial such that the PCAPCD significance threshold of 10,000 CO₂e/year would not be exceeded. Short-term constructed-generated emissions of GHGs would not result in a cumulatively considerable contribution to global climate change.

The project would involve upland improvements that could result in the generation of GHG emissions, such as new restroom facilities, administrative office, lawn and stage/event area, kiosk building, new concessionaire building to replace the existing building, non-motorized watercraft storage, and reconfigured parking lots. Implementation of Alternative 2 could also result in increased visitors at KBSRA from expanded capacity and increased number of special events that could generate additional vehicle trips. Operational or long-term GHG emissions would occur over the life of the project. Sources of emissions may include motor vehicles and trucks used by visitors and employees; electricity usage, natural gas combustion, water usage, wastewater and waste generation associated with new buildings, such as the restroom facilities and administrative office; and area sources, such as landscaping activities. Operational GHG emissions were estimated using CalEEMod Version 2016.3.1 for 2021, the first year of project operation based on the construction schedule of the proposed pier. The construction emissions shown in Table 5.3.5-1 were also amortized over the project's 20-year buildout and added to the overall emissions for 2021. Operational-related and amortized construction GHG emissions are summarized in Table 5.3.5-2 below by emissions source.

Table 5.3.5-2 Summary of Unmitigated Maximum Operational-Generated Emissions of GHGs by Source for Alternative 2 in 2021

Source	MT CO ₂ e/year
Mobile	75
Energy ¹	64
Area ²	0
Waste	1
Water	2
Amortized Construction Emissions ³	57
Total	208
PCAPCD Thresholds of Significance ⁴	550
Exceeds Thresholds?	No

Notes: See the technical analysis materials available on the project webpage (www.parks.ca.gov/PlanKBSRA) detail on model inputs, assumptions, and project specific modeling parameters.

GHGs = greenhouse gases, MT CO₂e/year = metric tons of carbon dioxide equivalent per year, PCAPCD = Placer County Air Pollution Control District, SB = Senate Bill, EO = Executive Order

¹ Energy sources include indirect emissions from natural gas combustion and electricity use.

² The project does not include the use of fireplaces or hearths.

³ Construction emissions are amortized over the project's 20-year lifetime.

⁴ Threshold of significance is derived from the state's interim targets of achieving a 40 percent reduction in 1990 GHG levels by 2030 as codified in SB 32 and an 80 percent reduction in 1990 GHG levels by 2050 as established by EO S-3-05.

Source: Modeling conducted by Ascent Environmental in 2017 based on using CalEEMod v. 2016.3.1.

As shown in Table 5.3.5-2, operational-related GHG emissions for the year 2021 would total 208 MT CO₂e/year, which is below the 550 MT CO₂e/year threshold developed to show consistency with the 80 percent reduction in 1990 levels of GHGs by 2050 as directed by Executive Order S-3-05. Further, due to the deployment of regulatory programs such as Advanced Clean Cars and the Renewable Portfolio Standard, triennial updates to the California Green Building Standards Code, and overall improvements in the efficiency of technology, yearly operational emissions would be expected to

decrease over the buildout of the project (i.e., 20 years). In summary, short-term construction-generated and long-term operational-related GHG emissions would be **less than significant**.

Pier Rebuild Project

Alternative 2 would include the construction of a rebuilt pier on the eastern portion of the project site. Implementation of Alternative 2 would include removal of an existing boat ramp, construction of a new lake access point, and construction of a pier comprised of 213 feet of a stationary fixed section, followed by an 80-foot transition gangway ramp, and a 215-foot floating section. The pier would require approximately 27 pier pilings for the fixed and floating sections. Emissions of GHGs associated with the construction of the Alternative 2 pier were included in the modeling performed and summarized above in Table 5.3.5-1. As discussed previously, short-term construction-related emissions of GHGs associated with implementation of Alternative 2, including the emissions related to the construction of the proposed pier and new lake access point and removal of the existing boat ramp, would not exceed the PCAPCD thresholds of significance for GHG emissions.

Operation of the pier would include direct GHG emissions from on-road mobile sources accessing the pier as well as emissions from motorized watercraft. On-road vehicle emissions associated with the pier were included in the modeling performed and detailed in Table 5.3.5-2. As discussed under the heading, Analysis Methodology, of this section, emissions from motorized watercraft were not modeled because while implementation of the pier rebuild component of Alternative 2 may result in localized changes in watercraft activity, it would not change overall motorized watercraft activity and related emissions on Lake Tahoe because it would not add additional overnight mooring or additional motorized boat access points. Further, emissions for motorized watercraft on Lake Tahoe would decrease over time due to fleet turnover and increasingly stringent California and federal emission standards for recreation watercraft. For these reasons, implementation of the pier rebuild project under Alternative 2 would not exceed PCAPCD's thresholds of significance nor result in a substantial contribution to global climate change. To conclude, short-term construction-related and long-term operational-related GHG emissions would be **less than significant**.

Alternative 3: Central Pier Alternative

General Plan Revision

When compared to Alternative 2, the Alternative 3 General Plan revision would largely be the same. Alternative 3 would be built out over 20 years and would include similar improvements to existing and construction of new facilities as Alternative 2 with some refinements in location or size. However, Alternative 3 would not include an administrative office, entry kiosk, or restroom facility on the western side of the park. Consequently, construction-related GHG emissions from implementation of Alternative 3 would be similar in magnitude as Alternative 2. As shown in the discussion for Alternative 2, construction activities would not produce levels of emissions of GHGs that would exceed the PCAPCD threshold of significance for construction-generated emissions. Further, operational emissions of the pier and facilities included as a part of Alternative 3 would be similar in amount to those under Alternative 2. As discussed previously, operational emissions associated with Alternative 2 would not surpass the applicable bright line threshold of significance for operational emissions. Due to the similar characteristics of Alternative 2 and Alternative 3, short-term construction-related and long-term operational-related emissions of GHGs would be **less than significant**.

Pier Rebuild Project

Alternative 3 would remove the existing boat ramp, construct a new lake access point, and reconstruct the pier in the central portion of the project site. The characteristics of the pier would be similar in size to the eastern pier proposed in Alternative 2. Consequently, construction-related GHG emissions

associated with implementation of the pier under Alternative 3 would be similar in magnitude as those emitted from construction activities under Alternative 2. As discussed above, construction-generated emissions of GHGs would not exceed the PCAPCD thresholds of significance for daily construction emissions. Further, operational-emissions associated with proposed pier under Alternative 3 would be similar to that of the pier under Alternative 3. As such, short-term construction-related and long-term operational-related emissions of GHGs associated with Alternative 3 would be **less than significant**.

Alternative 4: Western Pier Alternative

General Plan Revision

When compared to Alternative 2, Alternative 4 would largely be the same with some refinements in location or size of proposed features. Short-term construction-related and long-term operation-related emissions of GHGs would be similar to those discussed above for Alternative 2.

Implementation of Alternative 4 would not result in construction-generated or operational GHG emissions such that the applicable PCAPCD thresholds of significance for construction and operational emissions would be exceeded. Similar to Alternative 2, short-term construction-related and long-term operational-related emissions of GHGs associated with Alternative 4 would be **less than significant**.

Pier Rebuild Project

Implementation of Alternative 4 would include rebuilding a pier similar in size and characteristics as Alternative 2, but located on the western portion of the project site. Alternative 4 would also extend the existing motorized boat ramp. The boat ramp extension would be modest (its depth would increase by 2 feet to 6223.5 feet mean sea level) and while it would be expected to incrementally increase the period of time that the boat ramp is open, it would not provide access during all lake levels nor would it increase the number of boat launches that could occur on a given day (or the related boat-launch emissions) relative to existing conditions. Alternative 4 would not include an additional lake access point, nor would it include a swim buoy area. Short-term construction-related emissions of GHGs from pier and boat ramp extension construction would be similar to those discussed for Alternative 2. As discussed previously, emissions of GHGs from construction of the pier under Alternative 2 would not exceed the applicable PCAPCD thresholds of significance for daily construction emissions. Additionally, operational-emissions associated with the proposed pier under Alternative 4 would be similar to that of the pier under Alternative 2. Given that the operational emissions modeled for Alternative 2 would be substantially lower than the applicable threshold of significance for operational emissions, this expansion would not be anticipated to be substantial enough to exceed the 550 MT CO₂e threshold. Given that the pier proposed under Alternative 4 would be similar in nature to the pier proposed under Alternative 2, short-term construction-related emissions and long-term operational-related emissions of GHGs associated with Alternative 4 would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact 5.3.5-2: Impacts of climate change on the project

Climate change is expected to result in a variety of effects that would influence conditions on the project site. These effects include increased temperatures and increased wildfire risk, changes to the timing and intensity of precipitation, and increased stormwater runoff and flood risk. However, numerous state and county programs and policies are in place to protect the project against climate change-related physical effects. Therefore, this impact would be **less than significant** for Alternatives 2, 3, and 4.

The vulnerability of the project site with Alternative 1 would not be exacerbated with the implementation of Alternative 1. There would be **no impact**.

Alternative 1: No Project

General Plan Revision/Pier Rebuild Project

Alternative 1 would involve no physical improvements or changes to the project site or any substantial changes in management approaches. Existing operation and maintenance of the existing facilities on the project site would continue. The existing facilities and visitors to the project site would continue to be subject to the physical effects of climate change; however, their vulnerability would not be increased or exacerbated with the implementation of Alternative 1. There would be **no impact**.

Alternative 2: Eastern Pier Alternative (Proposed Project)

General Plan Revision/Pier Rebuild Project

Anthropogenic increases in GHG concentrations in the atmosphere have led to increased global average temperature through the intensification of the greenhouse effect, which have already caused changes in local, regional, and global average climatic conditions. Climate change effects would occur indiscriminately across the project site; therefore, the General Plan revision and pier rebuild project are discussed together. Implementation of Alternative 2 would involve upland improvements in KBSRA, such as new restroom facilities, administrative office, lawn and stage/event area, kiosk building, new concessionaire building to replace the existing building, non-motorized watercraft storage, and reconfigured parking lots. Alternative 2 would include the construction and operation of a pier on the eastern portion of the project site, removal of an existing boat ramp, and construction of a new lake access point. Implementation of Alternative 2 could also result in increased visitors at KBSRA from expanded capacity and increased number of special events that could generate additional vehicle trips.

Although there is a strong scientific consensus that global climate change is occurring and is influenced by human activity, there is less certainty as to the timing, severity, and magnitude of consequences of the climate phenomena. Scientists have identified several ways in which global climate change could alter the physical environment in California (California Natural Resources Agency 2012, California Department of Water Resources 2008, Intergovernmental Panel on Climate Change 2014). These include:

- ◆ increased average temperatures;
- ◆ modifications to the timing, amount, and form (rain vs. snow) of precipitation;
- ◆ changes in the timing and amount of runoff;
- ◆ reduced water supply;
- ◆ deterioration of water quality; and
- ◆ sea-level rise.

Aside from sea-level rise, these changes may combine into a variety of issues and concerns that may affect the project area, including but not limited to:

- ◆ increased frequency and intensity of wildfire as a result of increased temperatures and changing precipitation patterns,
- ◆ reduced levels of precipitation falling as snow and subsequent decrease in snow pack, and
- ◆ variations in the water level of Lake Tahoe due to drought.

Although uncertainty exists to the precise levels of these impacts, there is consensus regarding the range, frequency, or intensity of these impacts that can be expected. New or reconstructed facilities at KBSRA, including restroom and administrative buildings and the pier, could be subject to potential

hazards that could be exacerbated by climate change, such as changes in the timing and amount of runoff and the increased risk of flooding associated with changes to precipitation. According to the California Department of Forestry and Fire (CAL FIRE), the project site is located in a Very High Fire Hazard Severity Zone due to its location in coniferous forest of moderate slopes (CAL FIRE 2007). Thus, KBSRA facilities could be affected by increased frequency or intensity of wildfire.

Structural fire protection in the project area would be provided by North Tahoe Fire Protection District, which has a King's Beach-based fire station (Station 52) located within a half mile of the project site. Further, as discussed in Section 5.3.6, Hazards, Hazardous Materials, and Upset, the project would adhere to the state law requiring 100 feet of defensible space around structures. CAL FIRE plans for the project area include continued provisions of wildland fire protection and prevention services. Further, as discussed in Section 5.3.6, Hazards, Hazardous Materials, and Risk of Upset, would be required to comply with Department Operations Manual (DOM) Wildfire Management Planning Policy which would increase the project's resiliency to wildfire impacts.

The project area may also experience changes in the form in which precipitation falls. The project area may experience rainy precipitation events during periods of the year where historically snow would be deposited. Due to the project site's proximity to Lake Tahoe, this impact would likely not affect the project's water supply; however, a reduced snowpack may result in a decrease in snow-related recreational activities and a shorter snow season. Conversely, summertime recreational opportunities may become available in years where the snowpack is smaller, which could result in greater visitation at KBSRA during more times of the year. Further, during periods of prolonged drought, the water table of Lake Tahoe may lower due to snowmelt flowing slower than outlets of the lake, resulting in limited lake access to the pier.

These aforementioned climate change effect would be mitigated through implementation of the project's adaptive management policies. Further, existing resources to combat regional-specific climate change effects (e.g., wildfire) would improve the project's resiliency to climate change. As such, this impact would be **less than significant**.

Alternative 3: Central Pier Alternative

General Plan Revision/Pier Rebuild Project

When compared to Alternative 2, the Alternative 3 General Plan revision would largely be the same with some refinements in location or size of proposed features. However, Alternative 3 would not include an administrative office, entry kiosk, or restroom facility on the western side of the park. The reconstructed pier under Alternative 3 would be similar to the pier proposed under Alternative 2; however, it would be located in the central portion of the project site. Additionally, Alternative 3 would remove the existing boat ramp and construct a new lake access point. The physical impacts of climate change would not differ between Alternatives 2 and 3 as each alternative covers the same acreage, proposes similar facilities, and would expect a similar increase in visitation. As such, the climate change effects to the project site would be the same as that discussed above under Alternative 2. The impact would be **less than significant**.

Alternative 4: Western Pier Alternative

General Plan Revision/Pier Rebuild Project

Alternative 4 would include similar general plan revisions as Alternative 2 with some refinements in location or size of proposed features and would also entail reconstruction of a pier similar to that proposed under Alternative 2; however, the pier would be located in the western portion of the

project site. Alternative 4 also proposes to extend the existing motorized boat ramp. The boat ramp extension would be modest and while it would be expected to increase the period of time that the boat ramp is open, it would not provide access during all lake levels. Alternative 4 would not include an additional lake access point, nor would it include a swim buoy area. The physical impacts of climate change would not differ between Alternative 2 and Alternative 4. As such, the climate change effects to the project site would be the same as those discussed above under Alternative 2. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

As discussed above, due to the nature of global climate change, GHG analyses in Impacts 5.3.5-1 and 5.3.5-2 are inherently cumulative. The effects of global climate change are not the result of one project's GHG emissions but a collective inventory of many projects worldwide. The project's contribution to the cumulatively considerable impact of climate change is **less than significant**, as discussed above.