# 3.19 CUMULATIVE IMPACTS

# 3.19.1 Cumulative Impact Analysis Methodology

This section describes the cumulative impact analysis methodology for all environmental resource topics. The proposed US 50/South Shore Community Revitalization Project is a later activity consistent with the Lake Tahoe Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), which was evaluated in a program environmental impact report (EIR) and Tahoe Regional Planning Agency (TRPA) environmental impact statement (EIS) that was adopted in December 2012. Therefore, cumulative impacts from the US 50/South Shore Community Revitalization Project are addressed in light of the information in the program EIR/EIS. Where cumulative impacts have previously been addressed in the RTP/SCS EIR/EIS, and are still applicable at this time, analysis of those impacts has not been repeated. Rather, reference is made to the appropriate analysis in the RTP/SCS. This approach is in accordance with Section 15168(d) of the State CEQA Guidelines.

The 2017 Regional Transportation Plan (2017 RTP), which is an update to the 2012 RTP, and its joint CEQA/TRPA environmental document have been circulated for public review. The vision and goals of the 2017 RTP were based on the 2012 RTP. The projects listed in the 2017 RTP are substantially similar to those in the 2012 RTP, and the US 50/South Shore Community Revitalization Project is included in both documents.

Although the draft 2017 RTP has been released for public review, and includes the US 50/South Shore Community Revitalization Project, the 2012 RTP/SCS is the currently adopted plan. Because an initial study/initial environmental checklist (IS/IEC) has been prepared for the 2017 RTP as a supplement to the RTP/SCS EIR/EIS and does not result in new significant environmental impacts, the analysis below continues to rely on the EIR/EIS.

# **DEFINITION OF CUMULATIVE IMPACTS**

Section 15130(a) of the State CEQA Guidelines requires a discussion of the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Cumulatively considerable, as defined in State CEQA Guidelines Section 15065(a)(3), means that the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." State CEQA Guidelines Section 15355 defines a cumulative impact as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

NEPA implementing regulations require consideration of cumulative effects (40 Code of Federal Regulations [CFR] 1508.25) during environmental review. Cumulative effects are defined as an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7).

Although the TRPA Rules of Procedure and Code of Ordinances do not identify consideration of cumulative impacts as a specific requirement of an EIS, the TRPA Initial Environmental Checklist form poses the following question: "Does the project have impacts which are individually limited, but cumulatively considerable?" In practice, TRPA looks to NEPA and CEQA for guidance in the approach to assessing

cumulative impacts, so analysis that complies with those environmental laws is also sufficient for TRPA purposes.

# **CUMULATIVE IMPACT APPROACH**

The 2012 RTP/SCS was approved based on the environmental analysis in a joint CEQA EIR/TRPA EIS that was prepared as a program environmental document for the entire plan of transportation projects, including the US 50/South Shore Community Revitalization Project. The RTP/SCS EIR/EIS is incorporated by reference into this document for the purpose of relying on cumulative and region-wide impact analysis that has already been prepared and presented in the certified program EIR, in accordance with State CEQA Guidelines Section 15168, and in the certified TRPA EIS. Section 15168(d) of the State CEQA Guidelines states:

- (d) Use with Subsequent EIRs and Negative Declarations. A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can:
  - (1) Provide the basis in an Initial Study for determining whether the later activity may have any significant effects.
  - (2) Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole.
  - (3) Focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.

To the extent that cumulative impacts and region-wide influences are covered in the RTP/SCS EIR/EIS and are still applicable, this EIR/EIS/EIS relies on that prior analysis and does not conduct a redundant evaluation. These impacts are described in sub-section 3.19.3 below.

To examine the contributions of other related projects that are not included in the RTP/SCS EIR/EIS, the cumulative impact analysis is conducted in accordance with State CEQA Guidelines Section 15130. It identifies two basic methods for establishing the cumulative context within which a project is considered: (1) the use of a list of past, present, and probable future projects or (2) the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. A combination of these approaches may also be used. NEPA and TRPA do not provide similarly detailed guidance on methods for cumulative impact analysis.

This cumulative analysis uses the "list" approach to supplement, where needed, the analysis, modeling of projections, and impact evaluation from the previously certified EIR/EIS for the RTP/SCS. Sub-section 3.19.4 discusses cumulative impacts using the list approach. The effects of past and present projects on the environment are reflected by the existing conditions in the project site and broader study area, as described in Chapter 3, Sections 3.1 through 3.18 of this EIR/EIS/EIS.

# 3.19.2 Cumulative Setting

The geographic area that could be affected by the project varies depending on the type of environmental resource being considered. When the effects of the project are considered in combination with other past, present, and probable future projects to identify cumulative impacts, the other projects that are considered may also vary depending on the type of environmental effects being assessed. Table 3.19-1 presents the general geographic areas associated with the different resources addressed in this analysis.

Resource Topic	Geographic Area
Land Use	Limited to project site and surrounding land uses
Parks and Recreation Facilities	Tahoe Region (overall accessibility of recreational opportunities) and South Shore area (interactions with individual recreational activities)
Community Impacts	South Shore area (defined as the area extending from Meyers, CA to Zephyr Cove, NV)
Public Services and Utilities	South Shore area of Lake Tahoe (water, wastewater, electricity, natural gas, and solid waste) and study area (police and fire)
Traffic and Transportation	Tahoe Region and local roadways where the project could alter traffic conditions
Visual Resources/Aesthetics	Project site and surrounding public viewpoints
Cultural Resources	Study area
Floodplains	Local and regional watersheds
Water Quality and Stormwater Runoff	Local and regional watersheds
Geology, Soils, Land Capability, and Coverage	Tahoe Region for land capability and coverage; study area for site grading and erosion potential
Hazards, Hazardous Materials, and Risk of Upset	Study area
Air Quality, Greenhouse Gas Emissions and Climate Change	Tahoe Region (pollutant emissions that affect the air basins), study area (pollutant emissions that are highly localized), and global/statewide for greenhouse gases
Noise and Vibration	Study area where project-generated noise could be heard concurrently with noise from other sources
Biological Resources	Defined differently for each species, based on species distribution, habitat requirements, and scope of impact from proposed activities
Source: Compiled by Ascent Environmental Inc. in 2016	

Table 3.19-1Geographic Scope of Cumulative Impacts

# 3.19.3 Cumulative Impacts Addressed in the RTP/SCS EIR/EIS

The US 50/South Shore Community Revitalization Project is included in the list of projects to be undertaken to implement the Lake Tahoe RTP/SCS. The RTP is a long-range plan to develop a transportation system in the Tahoe Region that supports a healthy and prosperous community, economy, and environment and mitigates existing adverse mobility and environmental conditions. The SCS is a combined land use and transportation plan to meet adopted goals for the reduction in greenhouse gas (GHG) emissions, in compliance with California's Senate Bill (SB) 375, Statutes of 2008. The Lake Tahoe RTP/SCS was last updated and adopted in December 2012. Many of the contemporary concepts necessary to achieve the Region's transportation vision were incorporated into the RTP at that time, in conjunction with the SCS for the California side of the Region. These concepts include integration between land use planning and transportation; bringing work, shopping, recreation, housing, and lodging closer together; improving the linkage of development to a multi-modal transportation system; closing gaps in the existing bicycle and pedestrian network; enhancing transit service; and revitalizing communities through corridor enhancement projects that improve mobility for all travel modes.

In December 2012, prior to adoption of the plan, a program EIR/EIS was certified for the RTP/SCS. In accordance with Section 15168 of the State CEQA Guidelines, a program EIR may be prepared on a series of actions that can be characterized as one large project and are related to, among other things, the issuance of general criteria to govern the conduct of a continuing program or individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways. The proposed RTP/SCS met these criteria for use of a program EIR.

A program EIR provides a regional consideration of cumulative effects and includes broad policy alternatives and program-level mitigation measures that are equally broad in scope. The program EIR prepared for the RTP/SCS provides a regional-scale analysis and a framework of mitigation measures for subsequent, sitespecific environmental review documents prepared by lead agencies in the Region as individual planning, development, and transportation projects are identified, designed, and move through the planning, review, and decision-making process.

Because the RTP/SCS EIR/EIS serves as the program environmental document for the US 50/South Shore Community Revitalization Project and the project is included in the RTP/SCS project description, the project is a "later part of" the RTP/SCS and is consistent with the program EIR/EIS. As noted in Section 15168(d) of the State CEQA Guidelines, the program EIR can be used to "simplify the task of preparing environmental documents on later parts of the program." The program EIR can be incorporated by reference into a later project's EIR to "deal with regional influences, secondary effects, cumulative impacts, broad alternatives and other factors that apply to the later project." As such, the following discussion summarizes cumulative impacts that have been addressed adequately in the RTP/SCS EIR/EIS. Refer to the RTP/SCS EIR/EIS for more detailed information. The Draft and Final EIR/EIS can be found and downloaded at http://tahoempo.org/Mobility2035/.

# CUMULATIVE VEHICLE MILES TRAVELED PER CAPITA IN THE REGION

Vehicle miles traveled (VMT) per capita is a measure of the efficiency of the transportation system and the degree to which the land use pattern would reduce personal motor vehicle travel. For the Tahoe Region, VMT per capita may be influenced by a number of variables, including land use pattern, emphasis on personal motor vehicle travel compared to other travel modes, and implementation of vehicle trip reduction strategies. When VMT per capita increases, it results in indirect environmental impacts such as air pollutant emissions. In the RTP/SCS analysis, VMT per capita increases would be caused by a number of factors such as additional external workers associated with new commercial space; lack of substantial bicycle, pedestrian, and transit enhancements; and limited number of new dwelling units added to the Region (i.e., less ability to use new dwelling unit placement to decreased average VMT). Region-wide VMT per capita decreases would result from improved non-motor vehicle mobility under Alternatives B, C, and D, such as the pedestrian overcrossing, cycle track, bicycle lanes, and sidewalks of the US 50/South Shore Community Revitalization Project, and the placement of a majority of new dwelling units within a town center as directed by the Lake Tahoe Regional Plan. Under the adopted RTP/SCS, region-wide VMT per capita would decrease. Thus, recognizing the US 50/South Shore Community Revitalization Project was included in the region-wide analysis for the RTP/SCS, the project's contribution to any change in VMT per capita would not contribute to a cumulatively significant impact for the purposes of CEOA and TRPA.

Because of the reasons stated above, for the purposes of NEPA, there **would not be an adverse cumulative effect** related to change in VMT per capita.

# CONSISTENCY WITH AIR QUALITY PLANS AND TRANSPORTATION CONFORMITY

The Lake Tahoe Air Basin (LTAB) is in attainment or designated unclassified for all National Ambient Air Quality Standards (National AAQS) and is designated nonattainment for ozone and  $PM_{10}$  per California AAQS. The intent of the RTP/SCS is to accommodate the expected growth in the Region in a way that improves traffic flow and mobility of residents and visitors to the Region, and reduces regional and localized traffic congestion. The US 50/South Shore Community Revitalization Project helps achieve the traffic flow and mobility goals of the RTP/SCS.

For the California portion of the LTAB, the only applicable federal air quality plan for Lake Tahoe is the Carbon Monoxide Maintenance Plan (CO Maintenance Plan) originally adopted in 1996 and revised in 2004. Since other pollutants were already in attainment with their respective national air quality standards when the CO Maintenance Plan was prepared, no other maintenance plans were developed. Part of the CO

maintenance strategy involves allocation of transportation emissions budgets to maintenance areas. The RTP is (and must be) in conformance with the transportation emissions budget allocated to the Region. The emissions budgets only apply to VMT in the applicable California jurisdictions. If the RTP conforms to the emissions budget allocated to the Region, then the RTP would be consistent with the CO maintenance strategy for the CO National AAQS.

The RTP/SCS was found to result in mobile-source CO emissions well within the emissions budgets allocated for transportation conformity. The transportation emissions budget is the basis for air quality planning efforts in the Lake Tahoe CO Maintenance Plan. If the transportation emissions budget is met, then the Basin is considered to be on track for continuing to maintain attainment of the national CO standards. The RTP/SCS would not conflict with or obstruct regional CO maintenance efforts; in fact, the mobility improvements consistent with the RTP help maintain the national CO standard. Because the US 50/South Shore Community Revitalization Project is included within the RTP/SCS list of projects that would improve traffic flow and mobility, the project also conforms with the CO Maintenance Plan. Therefore, the project's impact on continued attainment of the national CO standard would be beneficial and would not contribute to a cumulatively significant impact for the purposes of CEQA and TRPA.

Because of the reasons stated above, for the purposes of NEPA, there **would not be an adverse cumulative effect** related to attainment of the national CO standard.

# CUMULATIVE LONG-TERM OPERATIONAL REGIONAL AIR QUALITY IMPACTS

Basin-wide VMT calculations for the RTP/SCS were obtained from the TRPA travel demand model and were estimated using the origin-destination method recommended by the SB 375 Regional Targets Advisory Committee. Total Basin-wide, mobile-source emissions associated with VMT for the RTP/SCS were modeled using EMFAC 2011. It was assumed that the vehicle fleet information contained in the EMFAC model for eastern Placer and El Dorado Counties would be representative of vehicles throughout the Region because the factors that determine vehicle choice (e.g., lifestyle, mobility, environmental, and local economic factors) do not differ dramatically within the Basin.

Mobile-source emissions associated with the RTP/SCS were found to decrease over the plan implementation period, because of increasingly stringent vehicle emission standards. These emissions estimates were based on outputs from the regional transportation model for plan build-out and represent the cumulative (2035) condition. Because long-term regional emissions would decrease over the plan period, RTP/SCS implementation would not conflict with attainment and maintenance efforts and would help TRPA achieve air quality standards and thresholds. Because the US 50/South Shore Community Revitalization Project is included within the RTP/SCS list of projects and was contemplated in the RTP/SCS EIR/EIS, implementation of the project **would not contribute to a cumulatively significant impact** to long-term, operational, regional air quality for the purposes of CEQA and TRPA.

Because of the reasons stated above, for the purposes of NEPA, there **would not be an adverse cumulative effect** related to long-term, operational, regional air quality.

# **GREENHOUSE GAS EMISSIONS - CUMULATIVE CLIMATE CHANGE CONTRIBUTION**

Implementation of the RTP/SCS would occur in conjunction with land use development and population growth anticipated during the plan horizon. Although the RTP strategies would improve the efficiency of transportation-related GHG emissions by increasing transit and non-motorized vehicle travel, the combined influence of development and population growth occurring during the RTP/SCS plan horizon would be greater than the GHG efficiency gains that would be achieved, resulting in a net cumulative increase in GHG emissions. The regional GHG emissions increase would contribute to the significant cumulative impact on global climate change, despite implementation of all feasible measures to reduce GHG emissions. The adopted RTP/SCS alternative's strategy package of land use and transportation sector. Because the

US 50/South Shore Community Revitalization Project is included within the RTP/SCS list of projects, it would be part of a considerable contribution to the cumulative impact of climate change. Additionally, the RTP/SCS EIR/EIS and the Regional Plan Update Environmental Impact Statement (RPU EIS) included Mitigation Measures 3.5-1 (TRPA 2012b:3.5-24 – 3.5-25) and 3.5-1 in the RTP/SCS EIR/EIS (TMPO and TRPA 2012:3.5-23) that minimize greenhouse gas emissions associated with construction activities and operation of new buildings. TRPA implemented these mitigation measures through changes to the standard conditions of approval for projects that includes additional efforts to reduce emissions through construction best practices, revisions to the Code for vehicle idling restrictions, and an amendment to the Code that requires Area Plans to include a strategy to reduce GHG emissions from the construction or operation of buildings (TRPA 2013:75 – 88). Construction of the transportation improvements and mixed-use development, including replacement housing, would be required to implement all feasible construction best practices as a condition of approval. No additional feasible mobile-source GHG mitigation is available. This **significant cumulative impact** was acknowledged in the RTP/SCS EIR/EIS, so it need not be re-evaluated here.

# CUMULATIVE LONG-TERM TRAFFIC NOISE LEVELS ALONG EXISTING ROADWAY ALIGNMENTS

Long-term traffic noise levels under the RTP/SCS could exceed threshold standards established by TRPA for different land use categories and highway corridors. They could result in a perceptible long-term increase to the ambient noise level of 3 dBA Community Noise Equivalent Level (CNEL) or greater in areas where the applicable TRPA threshold standard is not exceeded, and/or result in a long-term noise level increase in an area where the applicable TRPA threshold standard is already exceeded. It is unknown at this time whether all individual projects included in the adopted RTP/SCS alternative would be able to incorporate design and operational measures that would prevent an increase in traffic noise levels that exceed applicable TRPA-designated CNEL standards and/or that would fully offset traffic noise increases in areas where TRPA-designated CNEL standards are already exceeded. However, the RTP/SCS EIR/EIS provided mitigation that would reduce potential impacts of project implementation to a less-than-significant level, and that mitigation is incorporated into the US 50/South Shore Community Revitalization Project. As a result, the project would **not contribute to a cumulatively significant impact** on long-term traffic noise levels along existing roadway alignments.

Because of the reasons stated above, for the purposes of NEPA, there **would not be an adverse cumulative effect** related to long-term traffic noise levels along existing roadway alignments.

# CUMULATIVE LONG-TERM TRAFFIC NOISE LEVELS ALONG REALIGNED ROADWAYS

Two projects involving roadway realignments are included in the approved RTP/SCS: the US 50/South Shore Community Revitalization Project and the SR 89/Fanny Bridge Community Revitalization Project. A project involving the realignment of existing roadways would relocate traffic and attendant noise to locations that were previously quieter and where future traffic noise levels could exceed the CNEL standards established by the applicable area plans, community plans, plan area statements (PASs) and/or local jurisdictions. Adopted mitigation that is part of the RTP/SCS would reduce potential impacts of project implementation to a less-than-significant level. Although the US 50/South Shore Community Revitalization Project is included within the RTP/SCS and its EIR/EIS, and all mitigation measures in the RTP/SCS EIR/EIS also apply to this project, additional noise mitigation would be required beyond what was prescribed in the RPT/SCS EIR/EIS for the relocated section of the highway through the Rocky Point neighborhood. Please refer to Cumulative Impact 3.15-3 below.

# **CUMULATIVE LAND COVERAGE**

According to the 2015 Threshold Evaluation for soil conservation, Land Capability Districts (LCDs) 1a, 1c, and 2 through 7 are meeting the land coverage threshold standard for hard impervious cover. LCD 1b is not meeting the stream environment zone (SEZ) threshold standard, since existing hard impervious cover is estimated to be exceeding the allowable land coverage by approximately 660 acres region-wide (TRPA 2016).

Coverage is considered a major environmental issue in the Region and various programs and projects exist to reduce coverage and the associated indirect impacts (e.g., water quality degradation). Many projects throughout the Region involve reductions in coverage on sensitive lands and the public acquisition of private sensitive land parcels. These projects include the Environmental Improvement Program (EIP), Tahoe Conservancy, Nevada Division of State Lands (NDSL), and US Forest Service land acquisition and restoration projects, the excess coverage mitigation program, and coverage transfer requirements. In addition, certain development projects, such as Beach Club on Lake Tahoe, Sierra Colina Village, and the Edgewood Lodge and Golf Course Improvement Project, also include reductions in coverage on sensitive lands.

In combination with these existing programs, all future development projects would be limited in land coverage by the TRPA Code. In addition, through reducing coverage in SEZs and focusing development into community centers on high capability lands, the RTP/SCS would move the Region toward attainment and maintenance of the soil conservation threshold standards.

Limitations on coverage and concentration of development in the community centers, coupled with incentives to transfer coverage out of low capability lands, would contribute to beneficial effects on indirect impacts of coverage, including effects on water quality, air quality, and biological resources, as discussed elsewhere in this cumulative impact discussion. Therefore, the RTP/SCS, including the US 50/South Shore Community Revitalization Project, **would not contribute to a cumulatively significant impact** on land coverage in the Region for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to land coverage in the Region.

# BASIN-WIDE VMT THRESHOLD STANDARD UNDER THE REGIONAL PLAN UPDATE

In addition to certification of the RTP/SCS, TRPA concurrently certified the Lake Tahoe Regional Plan Update in December 2012. Under Article V of the Tahoe Regional Planning Compact (Public Law 96-551), both a land use plan and a transportation plan are required to be prepared for the Tahoe Region. As stated in the Compact, the Regional Plan must include a "transportation plan for the integrated development of a regional system of transportation," including, but not limited to, parkways, highways, transit, waterways, public transportation, and bicycle facilities. As a result, the transportation analysis of the Regional Plan Update EIS included transportation policies proposed as part of the Transportation Element of the Goals and Policies and the package of capital projects and transportation strategies proposed in the RTP/SCS, which included the US 50/South Shore Community Revitalization Project. One impact included in the Regional Plan Update EIS and the RTP/SCS applies to this cumulative analysis: the Vehicle Miles Travelled (VMT) Threshold Standard for Air Quality under the Regional Plan Update. Refer to the Regional Plan Update EIS for more detailed information, available at http://trpa.org/, and the RTP/SCS EIR/EIS, available at http://tahoempo.org/.

VMT is a measure of automobile travel within the transportation system, and an indicator of the degree of integration between the transportation system and planned land uses (i.e., a lower VMT indicates greater beneficial integration of transportation systems and land uses to reduce personal vehicle travel). The 2011 Threshold Evaluation, and the recently adopted 2015 Threshold Evaluation, also recognized VMT as a proxy for regional traffic congestion, as well as for air quality (i.e., for nitrates, particulates, and visibility). As described above, VMT may be influenced by a number of variables, including land use pattern, emphasis on facilities to encourage use of certain travel modes over others, and implementation of vehicle trip reduction strategies.

The RTP/SCS includes new bicycle and pedestrian facilities, capital improvement projects, transit service and capital enhancements, and waterborne transit. These projects are estimated to result in a 2035 VMT that is 7.2 percent less than the 1981 VMT of the Tahoe Region. Because the VMT Threshold Standard calls for a 10 percent reduction from 1981, falling short of the reduction goal would be a significant impact. As described in the RPU EIS, there would be a potentially significant impact on the TRPA VMT Threshold

Standard, because implementation of the Regional Plan, including planned transportation projects, would not achieve a 10 percent reduction in VMT from 1981.

Because the US 50/South Shore Community Revitalization Project is included within the traffic analysis in the Regional Plan Update, the RTP/SCS, and this analysis, the project **would contribute to a cumulatively significant impact, before consideration of mitigation**.

TRPA adopted Mitigation Measure 3.3-3: Implement Additional VMT Reduction, in response to the shortfall in reaching the VMT reduction goal to reduce VMT by 10 percent from 1981 VMT. Under this mitigation measure, TRPA developed a program for the phased release of land use allocations, followed by monitoring and forecasting of actual roadway traffic counts and VMT. New development allocations will be authorized for release by the TRPA Governing Board every four years, beginning with the approval of the Regional Plan in 2012. Approval of the release of allocations is contingent upon demonstrating, through modeling and the use of actual traffic counts, that the VMT Threshold Standard will be maintained over the subsequent four-year period. This mitigation measure was established as TRPA Code Section 50.4.3. As a result of this requirement, the project **would not contribute to a cumulatively significant impact** for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to the VMT Threshold Standard.

# 3.19.4 Related Project List Analysis of Cumulative Impacts

# **RELATED PROJECT LIST**

A list of reasonably foreseeable, probable future projects has been developed to supplement the transportation projects included in the RTP/SCS, because these projects were not explicitly identified in the RTP/SCS EIR/EIS. The list of related projects is provided in Table 3.19-2. Probable future projects are those in the project vicinity that have a reasonable potential to interact with the US 50/South Shore Community Revitalization Project to generate a cumulative impact (based on proximity, type of impacts, and construction schedule) and either:

- are partially occupied or under construction,
- have received final discretionary approvals,
- have applications accepted as complete by local agencies and are currently undergoing environmental review, or
- ▲ are proposed projects that have been discussed publicly by an applicant or have otherwise become known to a local agency and have provided sufficient information about the project to allow at least a general analysis of environmental impacts.

Projects located within the vicinity of the project site have the possibility of interacting with the project alternatives to generate cumulative impacts. The list of projects in Table 3.19-2 was used in establishing the cumulative settings and impacts. Exhibit 3.19-1 shows the corresponding locations of the projects listed in Table 3.19-2.

# CUMULATIVE IMPACTS ADDITIONAL TO THOSE CONSIDERED IN RTP/SCS EIR/EIS

The following discussion addresses the cumulative impacts associated with implementation of the project alternatives in combination with other past, present, and reasonably foreseeable related projects. The cumulative impacts described below are limited to those environmental impacts that would occur related to

implementation of one or more of the alternatives evaluated in this EIR/EIS and that were not otherwise previously analyzed in the RTP/SCS EIR/EIS (as described above).

# Land Use

<u>Cumulative Impact 3.2-1: Cumulatively conflict with or impede implementation of existing land use plans and policies</u> Growth and development in the Region, including the study area for the project, is guided by the various land use and planning documents of TRPA, Tahoe Metropolitan Planning Organization (TMPO), City of South Lake Tahoe, and Douglas County. These documents serve as the blueprints for the South Lake Tahoe and Stateline communities in achieving their vision of the future. Analysis of the project's consistency with applicable plans is included in Appendix E, "Goals and Policies Consistency Analysis."

The cumulative projects listed in Table 3.19-2 could combine with the project to result in cumulative impacts on implementation of relevant land use plans and policies. In the course of environmental review, permitting, and approval, projects proposed in each jurisdiction are reviewed for consistency with adopted land use guidance documents. The cumulative projects within the jurisdiction of the City of South Lake Tahoe would be reviewed to ensure consistency with the City of South Lake Tahoe General Plan, TCAP, city code, including the zoning ordinance. The cumulative projects within the jurisdiction of Douglas County would be reviewed to ensure consistency with the Douglas County Master Plan, SSAP, county code, including the zoning ordinance. These projects would also be reviewed for compliance with the Regional Plan, TRPA Code of Ordinances, PAS 080, PAS 089, PAS 090, and PAS 092. Because individual projects would be reviewed by land use agencies in the context of their particular planning documents, zoning ordinances, codes, and other guidance documents prior to approval and implementation, resulting alterations of land use would be in accord with, and would implement the vision of these communities as prescribed in the land use plans and policies. The cumulative impact would be less than significant.

As described in Impact 3.2-1, transportation improvements included in Alternatives B, C, and D would implement planned improvements identified in the RTP/SCS, TCAP, SSAP, and ATP. Implementation of the mixed-use development, including replacement housing, as part of these alternatives would result in redevelopment and revitalization within the town center and improvements to pedestrian and bicycle safety and connectivity, which are high priorities of the Regional Plan, TCAP, and SSAP. The project would cumulatively combine with Zalanta at the Village and bike and pedestrian facility projects identified in the ATP to result in a cumulative benefit related to implementing the Regional Plan and TCAP policies related to redevelopment of town centers and mobility and connectivity improvements. The project's conflicts with plans and policies are assessed in this EIR/EIS/EIS and minimized to the extent feasible. Additionally, the project would not cumulatively combine with other projects to result in adverse physical effects on the environment related to cumulative conflicts with plans and policies. Therefore, for the purposes of CEQA and TRPA, **no cumulative impact** related to conflicts with any relevant land use plans, policies, designations, or zoning would occur.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to conflicts with any relevant land use plans, policies, designations, or zoning.

Project Name	Location	Description	Housing Units and/or Non-Residential Area	Project Status
Beach Club	Kahle Drive, Stateline, Nevada	Redevelopment of the existing mobile home park off Kahle Drive in Stateline with 143 residential housing units, development of a recreational beach and swim club, and a reconstructed pier. The project would also address specific environmental issues by reducing coverage, improving drainage, installing Best Management Practices (BMPs) for water quality, restoring SEZ, and improving flood attenuation.	143 housing units	Revised plans approved by TRPA April 2016. Environmental review and pier construction complete. Construction of the housing units anticipated to begin summer 2016.
Bijou Park Creek Watershed Management/Southwest Corner Project	Ski Run and Lake Tahoe Boulevard/US 50, South Lake Tahoe, California	Redevelop and restore a key site in the city. The project would remove several existing, aged buildings and construct approximately 50,000 square feet of commercial development at the southwest corner of Ski Run Boulevard and Lake Tahoe Boulevard (currently vacant) and several developed parcels to the west. The development would consist of retail and restaurant uses in two or three new buildings on the site, with surface parking.	_	Currently seeking funding for acquisition and beginning planning phase. Potential construction 2017.
Edgewood Lodge and Golf Course Realignment Project	180 Lake Parkway, Stateline, Nevada	Development at the Edgewood Tahoe Golf Course includes a lodge with 154 hotel rooms, a health spa, restaurant, and conference center. In addition, plans include 40 fractional residences, improvements to the golf course, and expansion of the existing clubhouse, and a new publicly-accessible beach.	154 hotel rooms 10 4-plex cabin structures	Environmental review and pier construction complete. The Lodge is under construction. Ten 4-plex cabin structures expected to start construction late 2016 or early 2017. Completion expected in 2020.
El Dorado Beach to Ski Run Bike Trail	Lake Tahoe Boulevard/US 50 between El Dorado Beach and Ski Run Boulevard, South Lake Tahoe, California	Construct a Class One bike trail from El Dorado Beach to Ski Run Boulevard	-	Design complete, construction planned for 2016.
Gondola Vista	South Lake Tahoe, California	Development of 22 housing units in 10 duplex buildings on the mountain side of Lake Parkway East across from Forest Suites Inn.	22 housing units	Existing TRPA and City permits have expired. A new application is currently under review. Expansion of US 50 would preclude this project as planned.

# Table 3.19-2Cumulative Projects List

Project Name	Location	Description	Housing Units and/or Non-Residential Area	Project Status
Heavenly Epic Discovery	South Lake Tahoe, California and Stateline, Nevada	Expansion of summer and year-round activities at Heavenly Mountain Resort. Includes activities such as ropes courses, zip lines, canopy tours, mountain biking, mountain coaster, and above-ground sky cycle. All activities would be accessed using the existing Gondola from the base station at Heavenly Village.	_	Approval by the Forest Service in April 2015 anticipated construction to occur over "several construction seasons." Construction on some components of the project have been completed, including the zip line. Expansion of activities outside of the top of Gondola area to the East Peak, Dipper/Comet areas will begin in summer 2016.
Linking Tahoe: Active Transportation Plan	Multiple locations, South Lake Tahoe, California and Stateline, Nevada	The plan guides the long-term planning of bicycle and pedestrian facilities in Lake Tahoe. The plan is intended to provide implementing agencies with the ability to apply for funding for new infrastructure, and provides implementation guidelines for design, development coordination, and programming. Bike and pedestrian facilities planned near the casino core include Class I trail along Park Avenue; Class II bike lane along Pine Boulevard, Park Avenue, Lake Parkway East, Lake Tahoe Scenic Bike Loop— Casino Core; Class III bike routes along Stateline Ave/Lakeshore Blvd/Park Ave; and pedestrian facilities along Park Avenue, US 50, and Lake Parkway East.	_	A technical amendment to the plan was completed in 2014. The plan is currently being updated. Individual projects are at various stages in the approval process and are to be implemented by various local agencies.
Osgood Basin Expansion	On CTC and City of South Lake Tahoe lands east of Ski Run Blvd., between Osgood Ave. and Paradise Ave.	Retrofit of the existing undersized Osgood basin to reduce fine sediment particles and nutrients in a high-priority, directly- connected catchment that discharges directly into the Ski Run Marina. Expansion of the basin to the east would require a higher berm, and proportionally larger footprint to overcome the challenges with the high groundwater table onsite. Alternative options may include a low flow drain to the Wildwood basins that would also improve the capacity current undersized Osgood basin	-	Pre-planning phase, no timeline for construction.
Overlook Court/Ruby Way	Near Overlook Court and Ruby Way, South Lake Tahoe, California	Provide additional storm drain inlets, subsurface drain pipes that will redirect runoff from a steep hillslope area to an existing under-utilized rock-lined channel and construct a series of linear storm drain detention basins to allow infiltration of stormwater.	-	Pre-planning phase, no timeline for construction.

# Table 3.19-2Cumulative Projects List

Project Name	Location	Description	Housing Units and/or Non-Residential Area	Project Status
Pioneer Trail Pedestrian Upgrades	Pioneer Trail between Ski Run Boulevard and Larch Avenue, South Lake Tahoe, California	Design and construct 0.5 miles of ADA compliant sidewalks and city street lighting along both sides of Pioneer Trail between Larch Avenue and Ski Run Blvd.	-	Pre-planning phase, no timeline for construction.
Sierra Colina Village	Lake Village Drive (adjacent to US 50), Stateline, Nevada	The approved project includes construction of 50 housing units (42 housing units in 21 townhouse-style duplexes, plus eight single-family homes, for a total of 29 building footprints), roadway improvements, utility infrastructure improvements, and four linear public facilities, or LPFs (public access facilities, recreation paths).	50 housing units	Revised permit approved by TRPA February 2015. Phase 1 construction anticipated for 2016 and expected to continue through 2022.
South Tahoe Greenway	Extends from Meyers, California to Stateline, Nevada	Project includes a Class I shared-use trail connecting Meyers, California to Stateline, Nevada at Van Sickle CA/NV Bi-State Park, which will also consolidate informal trails, restore disturbed land, and improve forest health along its length.	-	Phase 1a between Herbert Avenue and Glenwood Way in South Lake Tahoe was completed in summer 2015. CTC is submitting a plan revision to change the alignment for some of the other sections. TRPA will have to issue a new permit and/or plan revision for it.
Van Sickle Bi-State Park Master Plan	South Lake Tahoe, California and Stateline, Nevada	This is a multiple phased project that includes park infrastructure improvements (entrance and access points); public facilities, such as picnic/day use areas, restrooms, parking, interpretive facilities, and interpretive and hiking trails; cultural facility protection and improvements; and enhancement of natural resources (i.e., forest health, SEZ restoration, and wildfire protection) on 570 acres of land on the CA/NV border between the South Shore casino corridor and Heavenly Ski Resort. Future phases could include overnight camping, additional parking, additional trailheads, and a visitor center.	_	Phase 1 construction complete. Park opened to the public summer 2011. No new applications submitted for subsequent phases.
Zalanta at the Village (Chateau at the Village, Project B, Phase 1)	Between Friday Avenue and Stateline Avenue along US 50, South Lake Tahoe, California	Project B – Phase 2 of the Chateau at the Village project. 3-story mixed-use development with 19,477 square feet ground-level retail, upper floor condominium hotels, 73 parking spaces at the rear of the project area, 51 offsite parking spaces located at Project A, Phase 1 underground parking garage, streetscape and pedestrian improvements along Lake Tahoe Boulevard/US 50, and a courtyard with guest amenities.	32 Tourist Accommodation Units	Construction is in progress. Estimated completion in November 2016.

Source: Compiled by Ascent Environmental 2016



Exhibit 3.19-1

**Locations of Cumulative Projects** 

### <u>Cumulative Impact 3.2-2: Cumulatively include uses that are not listed as permissible uses in the applicable Plan Area</u> <u>Statements, community plans, and area plans or expand or intensify an existing non-conforming use</u>

The project features that are proposed in the US 50/South Shore Community Revitalization Project are identified as either allowable or special uses in applicable planning documents. Similarly, the approved or potentially approved new projects listed in Table 3.19-2 would also be permissible or expanding existing non-conforming uses. Because existing regulations preclude the development of prohibited uses, and require that findings for any special uses be made before project approval, Alternatives B, C, D, and E, taken together with the proposed new projects list, would not include uses that are not permissible, nor would it expand or intensify an existing non-conforming use. Therefore, for the purposes of CEQA and TRPA, **no cumulative impact** would occur.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to development of uses that are not listed as permissible or expand or intensify an existing non-conforming use.

# **Parks and Recreational Facilities**

<u>Cumulative Impact 3.3-1: Cumulative temporary disruption of public access to public lands and recreation areas</u> This portion of the Lake Tahoe Region contains a high density of recreational opportunities (Exhibit 3.3-1), including access to Lake Tahoe, Van Sickle Bi-State Park, Heavenly Mountain Resort, U. S. Forest Service lands, bike trails, and golf courses. Projects for which construction may be ongoing at the same time as the US 50/South Shore Community Revitalization Project include the Edgewood Lodge and Golf Course Realignment Project, Van Sickle Bi-State Park Master Plan Project, and Beach Club development project. If construction activities on any of these projects overlap, a cumulative temporary disruption of public access to recreation sites in the area could result.

Access to Edgewood Tahoe Golf Course, Van Sickle Bi-State Park, and Linear Park would be temporarily disrupted by construction activities under Alternatives B, C, and D. The timing of roadway construction under these alternatives would be determined once an alternative has been selected. Overlap in the construction period for the project with other nearby projects could contribute to a temporary cumulative impact to public access. Project impacts on recreation access during construction would be fully mitigated through Mitigation Measure 3.3-1; therefore, for the purposes of CEQA and TRPA, the project impacts with mitigation **would not be cumulatively considerable** on temporary access to Lake Tahoe, public lands, or recreation areas.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative environmental consequences related to temporary access to Lake Tahoe, public lands, or recreation areas.

# Cumulative Impact 3.3-2: Cumulative long-term change in public access to public lands and recreation areas

As discussed in Cumulative Impact 3.3-1, the southeastern portion of the Lake Tahoe Region contains a high density of recreational opportunities for visitors and residents of the region. Recreational access in the area is expected to increase with implementation of new projects over the next several years. Access to Lake Tahoe will be improved by the completion of the Edgewood Lodge and Golf Course Realignment Project and the proposed Beach Club development, both of which include additional public pedestrian beach access. Access to trails and public lands will be improved by completion of the South Tahoe Greenway bike trail; implementation of other projects within the Linking Tahoe: Active Transportation Plan (TMPO 2016); and implementation of the Van Sickle Bi-State Park Master Plan (NSP, CDPR, and Conservancy 2005), which includes additional trailheads and connection to the South Tahoe Greenway. As such, any cumulative impact on public access to recreation areas is anticipated to be beneficial.

None of the build alternatives would have a long-term adverse impact on access to Lake Tahoe, USFS lands, Linear Park, or other recreational facilities. Access to Van Sickle Bi-State Park would be improved under Alternatives B, C, and D by the addition of a trail, level crosswalk, and pedestrian bridge across the new US

50 ROW connecting the park to the urban core. Currently, a single crosswalk connects the park to the urban core at the intersection of Heavenly Village Drive and Montreal Road. The increase in public access to recreation facilities that would result with implementation of the project would **contribute to this beneficial cumulative effect** for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to long-term change in public access to public lands and recreation areas.

### Cumulative Impact 3.3-3: Cumulative increase in demand for or physical deterioration of recreation facilities

As discussed above, the southeastern portion of the Lake Tahoe Region contains a high density of recreational opportunities for visitors and residents of the Region. The capacity of existing recreational facilities and the addition of new facilities is expected to increase overall recreation capacity in the near future. As mentioned above, both the Edgewood Lodge and Golf Course Realignment Project and the proposed Beach Club development project would provide additional public access to beaches on those properties. The Van Sickle Bi-State Park Master Plan, when implemented, proposes to provide new overnight camping facilities, expanded day use facilities, a visitor center, and additional trailheads that would expand the recreational capacity of the area. Expansion of Epic Discovery at Heavenly Ski Resort is expected to add additional recreational capacity through mountain biking, a mountain coaster, and an aboveground sky cycle. Other future projects, however, would increase the number of residents and visitors to the area. The Edgewood Lodge and Golf Course Realignment Project would add 154 hotel rooms and 10 four-plex cabins. The proposed Beach Club development would add 143 housing units. The Sierra Colina Village development, just north of SR 207 in Douglas County, would add 50 residences.

Alternatives A and E, and Alternatives B, C, and D transportation improvements, would not include additional residential development and, therefore, would not result in additional demand on or physical deterioration of recreational facilities. Alternatives B, C, and D mixed-use development, including replacement housing, however, would add between 139 and 146 additional residences to the project area, which equates to between 317 and 337 net additional residents. This increase in residents for both the US 50/South Shore Community Revitalization Project and the additional projects was previously assessed in the Tourist Core Area Plan (TCAP) and the Regional Plan Update environmental documents, along with the potential for increased demand for recreation. The TCAP environmental document states that, while demand would be likely to increase, existing recreational facilities would be able to meet that demand. Although Alternatives B, C, and D mixed-use development, including replacement housing, would increase the number of residents and visitors who would use the recreational facilities and public lands in the area, the existing recreational capacity and the planned future capacity would accommodate this additional demand for recreational facilities and, therefore, **would not be a cumulatively significant impact** for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to an increase in demand for or physical deterioration of recreation facilities.

#### Cumulative Impact 3.3-4: Cumulative change to the quality of recreation user experience

The Van Sickle Bi-state Park Master Plan envisions the possible addition of campgrounds, new trailheads, and a visitor center. Alternatives B, C, and D would increase traffic and traffic noise levels in some areas of Van Sickle Bi-State Park; however, noise level changes at these locations would not be discernible by users at the existing park facilities. These alternatives would use context-sensitive design solutions in the changes at the main entrance to the park, the pedestrian overcrossing into the park, and the retaining wall along the mountain side of existing Lake Parkway. The potential for the same noise levels to have a greater impact on overnight visitors to Van Sickle Bi-state Park if the park improvements proposed in the Master Plan are implemented, would be taken into consideration when locating possible overnight camp facilities within the park in the future. For these reasons, and taking into account the park setting in proximity to an urban area, Alternatives B, C, and D would not substantially diminish recreation user experience. Recognizing the influence of the combination of both detractions and enhancements to recreation resource site conditions of the list of related projects (i.e., adverse for forest use, beneficial for access and amenities) and reasonably anticipating that user expectations take into account the setting, nearby urban area, and existing land use

patterns, the effect of the project's infrastructure improvements **would not result in a cumulatively significant impact** on the quality of recreation user experiences in the study area.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to the quality of recreation user experiences in the study area.

# **Community Impacts**

## <u>Cumulative Impact 3.4-1: Cumulative physical division of an established community causing changes to community character</u> <u>and cohesion</u>

With implementation of Alternatives B, C, and D, US 50 would be rerouted through an established neighborhood (generally known as Rocky Point), which exhibits a moderately cohesive residential community. The realigned US 50 would create a physical barrier restricting pedestrian access across the new highway alignment, although vehicular connectivity through the neighborhood would be maintained. The realigned highway would also result in increased pedestrian trip lengths for residents southwest of the highway. These three alternatives would physically divide residences within the Rocky Point neighborhood from each other, and from the adjacent commercial and tourist core area. The construction and operation of the new US 50 alignment would result in short-term and long-term adverse effects on this neighborhood associated with additional traffic, increased traffic noise, increased light and glare, visual impacts on neighborhood character, division of the neighborhood, and displacement of residences (cumulative displacement of residents are addressed in Cumulative Impact 3.4-4) even with implementation of Mitigation Measure 3.4-1. Displaced residents would be relocated to replacement housing constructed before residents are displaced and before construction of the transportation improvements in California begin. The preferred location for the replacement housing are the three sites identified for the mixed-use development. Therefore, the physical division of an established community caused by realignment of US 50 would result in adverse changes in the character and cohesiveness of a residential neighborhood. However, none of the reasonably foreseeable projects listed in Table 3.19-2 include actions that would divide an established community causing adverse changes in community character and cohesion of a residential neighborhood. Thus, the cumulative projects would not further exacerbate any divisions of the neighborhood or reduction of community cohesion, resulting in a worse effect on a cumulative basis. Consequently, for the purposes of CEQA and TRPA, these impacts of Alternatives B, C, and D transportation improvements would be remain significant on a project basis, but would not combine with effects of other projects to cause a cumulatively significant impact on physical division of an established community or community character and cohesion. Implementation of Alternatives B, C, and D mixed-use development, including replacement housing, would not result in additional significant adverse impacts related to community character and division of an established community. Similarly, they would not be exacerbated by listed projects on a cumulative basis.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to physical division of an established community or community character and cohesion.

## <u>Cumulative Impact 3.4-2: Cumulative alteration of the location, distribution, or growth of the human population for the Region</u> <u>during construction</u>

The geographic area that is considered for cumulative impacts on population growth and housing demand during construction consists of the City of South Lake Tahoe and state line areas.

During construction, the project would generate a temporary increase in employment in the South Shore area of up to approximately 80 construction jobs over the course of constructing the project, with approximately 30 construction jobs during the most intensive phase of constructing the transportation improvements. Alternatives B, C, and D mixed-use development, including replacement housing, could generate approximately 175 construction jobs over the course of constructing the mixed-use development, with approximately 90 construction jobs during the most intensive phase of construction. Similarly, the cumulative projects identified in Table 3.19-2 would also generate a temporary increase in employment associated with construction that would contribute to a potential cumulative impact on population growth

and housing demand during construction. These projects would generate a temporary increase in employment associated with construction. It is likely that some of these projects would be constructed concurrently with the project.

As identified in Table 3.4-3 and described in Impact 3.4-2, in 2014, 434 residents in the South Shore area were employed in the construction industry (TTD 2013:10). In addition, the decline in construction jobs recorded since 2002 would indicate an available labor pool of construction trades people who are underemployed. This existing construction industry labor pool is expected to be sufficient to meet the demand for construction workers that would be generated by the project, plus other projects in the region that could be under construction concurrently. Further, construction employees could originate in other nearby communities including Truckee (Nevada County), El Dorado County, and from the Reno area. Because construction workers serving the project and other projects in the Region can be expected to come from an ample available construction labor pool, substantial population growth or increases in housing demand in the region as a result of these construction jobs is not anticipated. Furthermore, even if some construction workers from outside the Region were employed at local project sites, construction workers typically do not change residences when assigned to a new construction site, and substantial permanent relocation of these workers to the area is not anticipated. Therefore, the construction of the project, in combination with other past, present, and reasonably probable future projects, would not be expected to generate the need for substantial additional housing. The cumulative impact related to population growth and housing demand associated with project construction would be less than significant. For the purposes of CEQA and TRPA, implementation of the project would not contribute to a significant cumulative impact.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to population growth and housing demand associated with project construction.

### <u>Cumulative Impact 3.4-3: Cumulative alteration of the location, distribution, or growth of the human population for the Region</u> <u>during operation</u>

The geographic area that is considered for cumulative impacts on population growth and housing demand during operation consists of the City of South Lake and Stateline areas.

As shown in Table 3.19-2, cumulative buildout of anticipated projects would result in construction of approximately 215 housing units, 226 TAUs, and 19,477 square feet of CFA in the South Shore and Stateline areas. These types of projects would foster economic and population growth through the construction of additional housing and employment opportunities. Assuming 2.59 persons per dwelling unit (per the average for the City of South Lake Tahoe and Stateline areas), population growth related to these proposed housing units would be approximately 557 persons. The addition of CFA from these projects would generate between approximately 30 and 115 new jobs. The location and distribution of development is heavily regulated in the Tahoe Region. Developers must be granted authorization for construction of new housing units, CFA, and TAUs through a limited number of allocations that are capped by the Regional Plan. These projects are required by the Regional Plan to obtain allocations for housing units, CFA, and TAUs. The cumulative impacts of the Regional Plan allocation system was previously determined in the RPU EIS and the RTP EIR/EIS to not result in a cumulatively significant impact related to population growth and the location of population, housing, and employment in the Region (TRPA 2012b:4-32 - 4-33, TMPO and TRPA 2012:4-27). For these reasons, the cumulative projects would not result in a substantial cumulative population growth or housing demand that would alter the distribution and location of population, housing, and employment planned for the Region.

Alternatives B, C, and D transportation improvements would result in an incremental increase in permanent employment associated with maintenance of the roadways and pedestrian overcrossing, and would not result in new residential uses, CFA, or TAUs. Permanent employment needs for Alternatives B, C, and D transportation improvements would be anticipated to be met by existing residents and would not generate population growth. The transportation improvements, when combined with other cumulative projects, would result in a less-than-significant cumulative impact on population growth and housing demand. For the reasons described above, the transportation improvements would not induce substantial population growth that would alter the distribution and location of population, housing, and employment planned for the Region.

Alternatives B, C, and D mixed-use development, including replacement housing, would result in a net population increase of approximately 320 to 340 people associated with new housing units and would result in a net increase of approximately 180 to 210 jobs. With the cumulative projects, the permanent population of the South Shore area would increase by approximately 900 persons and the number of jobs would increase by up to approximately 330 jobs. Because the mixed-use development, including replacement housing, would be subject to the Regional Plan development allocations described above, the project mixed-use development combined with other cumulative projects would result in a less-than-significant cumulative impact on population growth and housing demand. For the reasons described above, the transportation of population, housing, and employment planned for the Region. For the purposes of CEQA and TRPA, the project transportation improvements and mixed-use development, including replacement housing, would not not on population improvements and mixed-use development, including replacement housing, mould not induce substantial population growth that would alter the distribution and location of population improvements and mixed-use development, including replacement housing, would not contribute to a significant cumulative impact on the location and distribution of population, employment, and housing in the Region.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to population growth and housing demand associated with project operations.

### Cumulative Impact 3.4-4: Cumulative change in housing supply availability, including affordable housing

The type of property acquisition and subsequent displacement of residents and housing described in Impact 3.4-4 is not typical in the Tahoe Region and is not considered to contribute to or create a cumulative effect. The only cumulative project that would result in changes in the availability of housing, would be the Beach Club project listed in Table 19-2. Because the Beach Club project would construct new housing and result in a total net the loss of 12 housing units. As mitigation, the Beach Club project would provide one-to-one replacement for 54 moderate income housing units (Douglas County 2008:5.2-11 - 5.2-12). The Bijou Park Creek Watershed Management/Southwest Corner Project would displace the Knight's Inn. which is outside of the study area. The Knight's Inn does not contain any SRO units (Roverud, pers. comm., 2016). This impact would be a site-specific issue that does not accumulate to cause broader environmental consequences, so by its nature, cumulative impacts would not occur. Furthermore, there would be no net change in housing resulting from the project, including affordable housing, in the Region because Alternatives B, C, and D would construct replacement housing for the residents that would be displaced by the project. Because the project would result in no net loss of housing in the Region and the Beach Club project would replace moderate income housing displaced by that project, these projects would not combine to result in a significant cumulative impact on housing supply in the Region, including affordable housing. For the purposes of CEQA and TRPA, the project would not contribute to a significant cumulative impact on housing supply availability, including affordable housing.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to housing supply availability, including affordable housing.

### Cumulative Impact 3.4-5: Cumulative displacement of businesses

The type of property acquisition and subsequent displacement of businesses described in Impact 3.4-5 is not typical in the Tahoe Region and is not considered to contribute to or create a cumulative effect. The Bijou Park Creek Watershed Management/Southwest Corner Project would displace the Knight's Inn. This impact would be a site-specific issue that does not accumulate to cause broader environmental consequences, so by its nature, cumulative impacts would not occur. Therefore, this issue is not discussed further for the purposes of NEPA, CEQA, and TRPA.

#### <u>Cumulative Impact 3.4-6: Cumulative disproportionate adverse environmental effects on minority and low-income</u> populations

The geographic area that is considered for cumulative impacts related to disproportionate adverse environmental effects on minority and low-income populations consists of the project study area. As detailed

in Section 3.4, "Community Impacts," of this Draft EIR/EIS/EIS, the environmental justice discussions for the project focus on the Rocky Point neighborhood west of the Heavenly Village Center.

Cumulative projects within the study area that would be most likely to have a potential disproportionate adverse effect on the minority and low-income populations in the study area include the Van Sickle Bi-State Master Plan, Gondola Vista, and Zalanta. These cumulative projects could result in adverse effects, such as increased traffic and an associated increase in traffic noise, that could be disproportionately borne by the minority and low-income populations in the study area. The Pioneer Trail Pedestrian Upgrades and El Dorado Beach/Ski Run Bike Trail would not result in disproportionate adverse physical effects on the minority and low-income populations within the study area but would result in improved pedestrian and bicycle connectivity in the city that would be beneficial for this population. These minor impacts on minority and low-income populations from additional cumulative projects would generally offset each other. The impacts of the project described in Impact 3.4-6 are the primary impacts from a cumulative perspective, and the additional projects are minor compared to the project alternatives. Therefore, for the purposes of NEPA, CEQA, and TRPA this issue is not discussed further.

# **Public Services and Utilities**

## Cumulative Impact 3.5-1: Cumulative conflicts with existing utility infrastructure

Impacts associated with utility lines are generally limited to discrete locations. These types of impacts are related to construction activities and are short-term in nature. Disruption of utilities lines can be predicted and involve coordination with service providers, local agencies, and the entities affected. Thus, there is not an existing cumulative condition associated with impacts on existing utility lines. Implementation of the project alternatives would result in potentially significant impacts related to conflicts with existing utility infrastructure. These impacts would be limited to the project site and would not combine with related projects to result in a cumulative impact. Thus, for the purposes of CEQA and TRPA, the project **would not contribute to a significant cumulative impact** associated with interference with existing utility infrastructure.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to existing utility infrastructure.

### Cumulative Impact 3.5-2: Cumulative demand for water supply

The geographic area considered for assessing cumulative demand for water supply is the South Tahoe Public Utility District (STPUD) service boundary. Cumulative plus project conditions for water supply are evaluated within the project-specific impact analysis in Impact 3.5-2. As indicated in Impact 3.5-2, there would be sufficient and available water supplies to meet current demands, and the addition of demands from the project. Related projects that would also require water supplies, within the STPUD service area, include Zalanta (32 tourist accommodation units) and Gondola Vista (22 housing units). As described under Impact 3.5-2, there is over 4,000 acre-feet per year of water available through 2035, according to current planning documents. Thus, adequate water supplies would be available upon completion and operation of planned projects, including implementation of any of the build alternatives. Thus, for the purposes of CEQA and TRPA, the project would not contribute to a significant cumulative impact on water supply.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to demand for water supply.

### Cumulative Impact 3.5-3: Cumulative demand for wastewater collection, conveyance, and treatment

The geographic area considered for assessing cumulative demand for wastewater collection, conveyance, and treatment is the STPUD service boundary. Cumulative plus project conditions for wastewater collection, conveyance, and treatment are evaluated within the project-specific impact analysis in Impact 3.5-3. Modeling of the overall wastewater collection and conveyance infrastructure is based on buildout identified by the general plans in effect at the time of the model development, which consisted of the City of South Lake Tahoe 1999 General Plan, the 2008 General Plan Housing Element Public Review Draft, and the El Dorado County 2004 General Plan. Related projects that would also require wastewater collection,

conveyance, and treatment, within the STPUD service area, include Zalanta (32 tourist accommodation units) and Gondola Vista (22 housing units). As described under Impact 3.5-3, approximately 3.6 million gallons per day of treatment capacity is available at the STPUD treatment plant. Thus, adequate wastewater treatment capacity would be available upon completion and operation of planned projects, including implementation of any of the project alternatives. However, Impact 3.5-3 determines that Alternative B, C, and D mixed-use development, including replacement housing, would contribute to a potentially significant impact on two areas of the sewer collection system: sanitary sewer manhole (SSMH) BJ25 and the sewer pipe between SSMH BJ182 and SSMH BJ181. With implementation of Mitigation Measure 3.5-3, the necessary improvements to these components of the STPUD wastewater collection and conveyance system would be implemented in order to provide adequate capacity for operation of the mixed-use development. Thus, for the purposes of CEQA and TRPA, the project **would not contribute to a significant cumulative impact** on wastewater collection, conveyance, and treatment.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to demand for wastewater collection, conveyance, and treatment.

## Cumulative Impact 3.5-4: Cumulative impacts on solid waste disposal

The geographic area considered for assessing cumulative demand for solid waste disposal is the service area of the Lockwood Regional Landfill. Lockwood Regional Landfill presently has a capacity of 302.5 million cubic yards, over an area of 856.6 acres. Based on the April 2010 aerial survey the Landfill contained a waste volume of approximately 32.8 million cubic yards (NDEP 2016). Ultimately, the landfill would reach capacity and be subject to closure requirements under the Nevada Division of Environmental Protection. However, given that approximately 90 percent of the landfill capacity is available, there would be sufficient and available capacity to meet solid waste disposal needs for the foreseeable future.

The cumulative projects listed in Table 3.19-2 would contribute to the generation of solid waste and disposal at the Lockwood Regional Landfill, both as a result of construction activities and generation during operation of the projects. Construction and demolition activities associated with the project could generate approximately 5,700 cubic yards of solid waste; however, the project would be required to recycle or salvage for reuse a minimum of 50 percent of construction and demolition debris. Contributions of solid waste to the landfill associated with the project would be minimal (i.e., approximately 1,000 cubic yards or 800 tons per year for alternatives proposing mixed-use development). Another project in the cumulative setting, the Edgewood Lodge and Golf Course Improvement Project, is projected to generate approximately 400 tons of solid waste annually (TRPA 2012a:5.14-14). Thus, each of these two projects would generate approximately 2.19 tons and 1.1 tons per day, respectively. Presently, approximately 280 million cubic yards of solid waste capacity is available, and the landfill receives approximately 5,000 tons of waste per day (NDEP 2016), or 6,667 cubic yards per day. Even if all cumulative projects were projected to generate 2 tons per day, the projects' combined cumulative contribution would not be substantial (less than one percent of daily contribution). For these reasons, for the purposes of CEQA and TRPA, the project's contribution to solid waste disposal.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to demand for solid waste disposal.

### Cumulative Impact 3.5-5: Cumulative impacts on energy efficiency and energy consumption

The geographic area considered for cumulative impacts related to energy use includes the service areas for Liberty Energy, NV Energy, and Southwest Gas Corporation. These providers employ various programs and mechanisms to support provision of these services to new development; various utilities charge connection fees and re-coup costs of new infrastructure through standard billings for services. There is currently sufficient infrastructure and energy supply to support existing demand.

Cumulative projects identified in Table 3.19-2 that would be served by these energy providers include Sierra Colina Village, Zalanta at the Village, Edgewood Lodge and Golf Course Realignment Project, and Beach Club. Through their established process to provide connections, electricity, and natural gas supply to new

development, Southwest Gas, NV Energy and Liberty Utilities use plans provided by developers to determine if or when upgrades in the system would be required to meet demand. Additionally, these projects would contribute to increased energy demand; however, in California, these projects would be required to implement energy efficiency measures in accordance with Title 24 to reduce energy demand. Nevada also requires adherence to energy efficiency standards, presently the 2012 International Energy Efficiency Code, which is related to energy efficiency in residential and commercial buildings. However, the project would not construct any new buildings in the Nevada portion of the project site. For the purposes of CEQA and TRPA, for these reasons and because the utilities have procedures to plan for system improvements to keep pace with projected demand, the project **would not contribute to a significant cumulative impact** related to energy efficiency.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to energy efficiency and consumption.

### Cumulative Impact 3.5-6: Cumulative demand for law enforcement and fire and emergency services

The geographic area considered for assessing cumulative demand for law enforcement and fire and emergency services is the City of South Lake Tahoe and Douglas County. As described in Impact 3.5-6, the project would result in a small increase of permanent full-time residents. During holidays and other periods of high tourist visitation (e.g., ski season, summer weekends), the project population would be expected to increase, which, in combination with other nearby similar developments including, Sierra Colina Village, Zalanta at the Village, Edgewood Lodge and Golf Course Realignment Project, and Beach Club, could affect police, fire, and emergency services ratios and response times. However, because it would be periodic, in a manner consistent with the periodic peak visitation that already occurs in the region, it would not be anticipated to result in physical deterioration of existing facilities or require additional facilities. Additional staff on duty during these peak periods are accommodated in existing facilities and with existing equipment. Because the project and other development would not be substantial compared to the types of seasonal population fluctuations typical of South Lake Tahoe, for the purposes of CEQA and TRPA, the project **would not contribute to a significant cumulative impact** on law enforcement and fire and emergency services.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to law enforcement and fire and emergency services.

### Cumulative Impact 3.5-7: Cumulative demand for public schools

The geographic area considered for assessing cumulative demand for public schools is limited to the Lake Tahoe Unified School District (LTUSD) and the Douglas County School District, During the 2014/2015 school year, LTUSD-wide enrollment totaled 3,881. Cumulative residential projects, in addition to the project, that would contribute to demand for public schools would include the Gondola Vista Project in California, which proposes 22 housing units. As discussed in Impact 3.5-7, the project would result in a net increase of 45 to 49 new students, that could be served by the schools in LTUSD, which have available capacity. Acquisition of a portion of the Gondola Vista property and the roadway design for Alternatives B, C, and D would preclude implementation of the Gondola Vista project. Although Gondola Vista could be constructed if Alternative E is implemented, Alternative E would not generate additional demand for school services as identified in Impact 3.5-7. In Nevada, the Sierra Colina and Beach Club projects would add approximately 193 residences, though the Beach Club project replaces 150 mobile homes. The Douglas County School District at Lake Tahoe has seen a precipitous drop in enrollment that has resulted in the closure of the middle school. Existing capacity exists at Whittel High School and Zephyr Cove Elementary School to accommodate the additional students that would be anticipated with construction of these residential projects in Nevada. Therefore, the project would not cumulatively combine with any other similar or nearby projects to result in a cumulative impact on demand for school services. For these reasons and because a greater number of students have been served by LTUSD and the Douglas County School District in the past (Table 3.5-2), the project's demand for school services would not contribute to a significant cumulative impact to demand on public schools for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to demand on public schools.

# **Traffic and Transportation**

The project-level analysis in Section 3.6, "Traffic and Transportation," addresses both the 2020 (opening day) scenario and the 2040 (design year) scenario. The 2040 (design year) analysis involves impacts of the construction of mixed-use development, including replacement housing, proposed with Alternatives B, C, and D, which would take place after opening day (2020) and before the long-term planning design year (2040). As such, the Year 2040 (design year) analysis contained in Section 3.6 also constitutes a cumulative impact analysis because it incorporates long-term impacts of the cumulative projects identified in Table 3.19-2. Therefore, this discussion of cumulative traffic and transportation impacts summarizes the 2040 (design year) analysis provided in Section 3.6 only. Because parking impacts identified in Impact 3.6-10 and 3.6-11 (see Section 3.6, "Traffic and Transportation) associated with construction of the project and during operations would be site-specific and no other cumulative project identified in Table 19-2 would combine with the project to result in a cumulative loss of parking. For these reasons, cumulative impacts related to parking are not discussed further for the purposes of NEPA, CEQA, and TRPA.

# Cumulative Impact 3.6-12: Cumulative impacts on intersection operations

Based on the 2040 (design year) analysis provided in Section 3.6, Alternative A and Alternative C, transportation improvements and mixed-use development, including replacement housing, are projected to degrade intersection operations in the project study area to unacceptable levels. Alternatives B and D, transportation improvements and mixed-use development, including replacement housing, and Alternative E would not degrade intersection operations. Therefore, for the purposes of CEQA and TRPA, Alternative A **would make a considerable contribution to a significant cumulative impact**; with implementation of Mitigation Measure 3.6-2 Alternative C **would not result in a significant cumulative impact** on intersection operations; and Alternatives B, D, and E **would not result in a significant cumulative impact** on intersection operations.

There would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize Alternative A cumulative impacts on intersection operations in 2040.

For the purposes of NEPA, additional mitigation measures have been incorporated into the Alternative C to further reduce to the extent feasible the cumulative effects on intersection operations in 2040.

For the purposes of NEPA, design features of Alternatives B, D, and E would avoid or minimize cumulative effects related to intersection operations in 2040.

# Cumulative Impact 3.6-13: Cumulative impacts on roadway segment operations

Based on the 2040 (design year) analysis provided in Section 3.6, Alternative A and Alternative C transportation improvements and mixed-use development, including replacement housing, are projected to degrade roadway segment operations in the project study area to unacceptable LOS levels. Alternatives B and D transportation improvements and mixed-use development, including replacement housing, and Alternative E would not degrade roadway segment operations. Therefore, for the purposes of CEQA and TRPA, Alternative A would make a considerable contribution to a significant cumulative impact; with implementation of Mitigation Measure 3.6-2 Alternative C would result in a significant cumulative impact on roadway segment operations; Alternatives B, D, and E would not result in a significant cumulative impact on roadway segment operations.

There would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize Alternative A cumulative impacts on roadway segment operations in 2040.

For the purposes of NEPA, additional mitigation measures have been incorporated into the Alternative C to further reduce to the extent feasible the cumulative effects on roadway segment operations in 2040.

For the purposes of NEPA, design features of Alternatives B, D, and E would avoid or minimize cumulative effects related to roadway segment operations in 2040.

#### Cumulative Impact 3.6-14: Cumulative impacts on vehicle miles traveled

Based on the 2040 (design year) analysis provided in Section 3.6, Alternatives B, C, and D transportation improvements and mixed-use development, including replacement housing, would result in a small increase in VMT as a result of the realignment of US 50. Nevertheless, these alternatives would remain consistent with the VMT per capita goal of RTP EIR/EIS Alternative 3, which was determined to have a beneficial impact on VMT. Improvements for Alternative E would only affect pedestrian traffic. Alternative A would have no impact for the purposes of NEPA, CEQA, and TRPA. For the purposes of CEQA and TRPA, Alternatives B, C, D, and E would not result in a significant cumulative impact to vehicle miles traveled.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to VMT in 2040.

#### Cumulative Impact 3.6-15: Cumulative impacts on bicycle and pedestrian facilities

Based on the 2040 (design year) analysis provided in Section 3.6, Alternatives B, C, D, and E would not disrupt or interfere with existing or planned bicycle/pedestrian facilities; rather, Alternatives B, C, and D would enhance the existing infrastructure and create a bicycle and pedestrian network with enhanced connectivity. Alternative E would enhance pedestrian facilities, but would not create additional bicycle facilities. Alternative A would have no impact for the purposes of NEPA, CEQA, and TRPA. For the purposes of CEQA and TRPA, Alternatives B, C, D, and E would not result in a significant cumulative impact to bicycle and pedestrian facilities.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to bicycle and pedestrian facilities.

#### Cumulative Impact 3.6-16: Cumulative impacts on transit

Based on the 2040 (design year) analysis provided in Section 3.6, Alternatives B, C, D, and E would not disrupt or interfere with existing transit facilities and would enhance the existing transit infrastructure. Alternative A would have no impact for the purposes of NEPA, CEQA, and TRPA. For the purposes of CEQA and TRPA, Alternatives B, C, D, and E would not result in a significant cumulative impact to transit.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to transit.

#### Cumulative Impact 3.6-17: Cumulative construction-related impacts

Construction impacts are site specific and construction impacts of the project would not combine with construction impacts of the cumulative projects. For the purposes of CEQA and TRPA, **no significant cumulative impact** would result.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative construction-related impacts.

#### Cumulative Impact 3.6-18: Cumulative impacts on vehicular, bicycle, and pedestrian safety

Based on the 2040 (design year) analysis provided in Section 3.6, Alternatives B, C, D, and E would enhance the existing infrastructure and improve safety throughout the vehicular, bicycle, and pedestrian network within the study area. Therefore, for the purposes of CEQA and TRPA, all build alternatives **would have a cumulative beneficial impact** on improving vehicular, bicycle and pedestrian safety.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to vehicular, bicycle, and pedestrian safety.

Vehicular traffic would increase within the study area under Alternative A, thus impacting bicycle safety and the existing above-state-average traffic accidents and injuries occurring at the US 50/Lake Parkway Loop intersection. Therefore, for the purposes of CEQA and TRPA, Alternative A **would result in a significant cumulative impact** on vehicular, bicycle and pedestrian safety.

There would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize Alternative A cumulative impacts on vehicular, bicycle, and pedestrian safety.

# Cumulative Impact 3.6-19: Cumulative impacts on emergency access

Alternatives B, D and E would reduce congestion along existing US 50 and thereby improve long-term emergency access within the study area, therefore Alternatives B, D and E **would not result in a significant cumulative impact** to emergency access for the purposes of CEQA and TRPA. Alternative A would result in traffic conditions worsening along existing US 50 between Pioneer Trail and Lake Parkway, and Alternative C would result in increased congestion and reduced emergency access to a segment of existing US 50. Alternative C would be required to implement Mitigation Measure 3.6-2, but impacts from Alternative C on emergency access would remain significant. Therefore, Alternatives A and C **would make a substantial contribution to a significant cumulative impact** to emergency access for the purposes of CEQA and TRPA.

There would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize Alternative A cumulative impacts on emergency access.

For the purposes of NEPA, additional mitigation measures have been incorporated into Alternative C to further reduce to the extent feasible the cumulative effects on emergency access.

For the purposes of NEPA, design features of Alternatives B, D, and E would avoid or minimize cumulative effects related to emergency access.

### Cumulative Impact 3.6-20: Cumulative daily vehicle trip ends (DVTE) impacts

Based on the 2040 (design year) analysis provided in Section 3.6, Alternatives B, C, and D with potential mixed-use development would generate a substantial number of new DVTE. Therefore, Alternatives B, C, and D mixed-use development, including replacement housing, **would make a substantial contribution to a significant cumulative impact** for the purposes of CEQA and TRPA. Alternatives A and E would include no modifications to the existing conditions and would have **no impact** for the purposes of CEQA and TRPA. Alternatives B, C, and D TRPA. Alternatives B, C, and D transportation improvements would not generate any additional DVTEs and, therefore, **would not result in a significant cumulative impact** on DVTEs for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the cumulative effects related to DVTE impacts.

For the purposes of NEPA, design features of Alternatives B, D, and E would avoid or minimize cumulative effects related to DVTE impacts.

# **Visual Resources/Aesthetics**

Probable future projects considered are those in the vicinity that would result in visual impacts on, or as viewed from, the visual study area defined in Section 3.7. Other projects proposed in this study area that would result in visual change have the possibility to contribute to a cumulative impact if they would be in the same views as changes caused by the project alternatives. Future projects in Table 3.19-2 that are within the geographic scope of the cumulative effects analysis include the Edgewood Lodge and Golf Course Realignment Project, Linking Tahoe: Active Transportation Plan, South Tahoe Greenway, Van Sickle Bi-State Park Master Plan, and Zalanta at the Village (Chateau at the Village, Project B Phase 1). All are in the vicinity of or along US 50 or Lake Parkway and could be seen in the same context as the US 50/South Shore Community Revitalization Project. Each project would, in some way, change the existing visual conditions in the study area. Other future projects are not located within the same viewshed as the project and the potential for cumulative impacts with these projects would not occur.

# Cumulative Impact 3.7-1: Cumulative degradation of scenic quality and visual character

Future projects within the geographic scope of the cumulative effects analysis would not individually have adverse effects on scenic quality or visual character. The Edgewood Lodge and Golf Course Realignment Project would maintain current scenic conditions as viewed from within the US 50/South Shore Community Revitalization Project. The Linking Tahoe: Active Transportation Plan and South Tahoe Greenway would likely maintain or improve scenic quality and visual character. The periphery of Van Sickle Bi-State Park directly adjoins a small portion of Lake Parkway. The Van Sickle Bi-State Park Master Plan proposes changes to areas inside the park that are not in view from Lake Parkway. Zalanta at the Village (Chateau at the Village, Project B Phase 1) would substantially improve scenic quality and visual character of the immediate area as compared to existing conditions. While the study area remains in nonattainment of scenic thresholds, the project and the cumulative projects should improve overall scenic quality in the area. The project is intended to provide impetus to property owners to invest in redevelopment of their properties and these new projects would be required to meet higher scenic standards than the existing structures. The result over the long term should be an overall improvement in scenic quality.

Alternative A would have no impact on scenic quality and visual character and, therefore, it **would not contribute to a cumulative impact** for the purposes of NEPA, CEQA, and TRPA.

Most effects on scenic quality in the study area from implementation of Alternatives B, C, and D transportation improvements would result in less-than-significant impacts either because no changes in visual conditions would occur, changes that would occur would be visually beneficial, or changes would be compatible with existing conditions. Effects on visual character of the residential neighborhood between Montreal Road and Pioneer Trail from Alternatives B, C, and D transportation improvements and on the tourist core from Alternative E would result in a significant project impact, because they would substantially degrade visual character in the immediate area. Alternatives B, C, and D transportation improvements would be required to implement Mitigation Measure 3.7-1a and Alternative E would be required to implement Mitigation Measure 3.7-1b; however, the impact on degradation of scenic quality and visual character from implementation of the project would remain significant and unavoidable at the project level and no other measures would be feasible to reduce the impact to a less-than-significant level. Although the project would result in a project-level significant and unavoidable impact, the potential visual effects of other projects identified in Table 19-2 would not combine with the project to result in a cumulatively considerable degradation of scenic quality and visual character in the Rocky Point neighborhood. Additionally, the cumulative projects and the build alternatives, including Alternative E, would likely improve scenic conditions in other portions of the study area; therefore, the cumulative projects would also not combine with Alternative E to result in a cumulatively considerable degradation of scenic quality and visual character in the tourist core. For these reasons, the build alternatives would not make a considerable contribution to a significant cumulative impact on scenic quality and visual character for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects on scenic quality and visual character.

### Cumulative Impact 3.7-2: Cumulative interference with or disruption of scenic vistas or scenic resources

As described above, cumulative projects and the build alternatives would improve scenic quality and visual character of the immediate area as compared to existing conditions. The cumulative projects in Table 19-2 would not cumulatively combine with each other to interfere with any overlapping scenic vistas or scenic resources because the projects are not located within close proximity to each other and some of the projects do not have enough mass, or would not result in new substantial above ground structures, such that they could cumulatively combine with each other to interfere with the overlapping scenic vistas or scenic resources. Therefore, the cumulative projects would not result in a cumulative impact on interference with or disruption of scenic vistas or scenic resources.

Alternative A would have no impact on scenic vistas and scenic resources. Alternatives B, C, and D would have less-than-significant or beneficial effects on scenic vistas and scenic resources. As a result of project features, views of scenic resources would change but, those features would not block or interrupt these

views and would have potential to improve visual quality by removing older, unattractive development. Alternative E would result in a project-level significant and unavoidable impact, after implementation of Mitigation Measure 3.7-2, on two TRPA-listed scenic resources (Scenic Resources 32.1 and 32.3). However, the potential effects on scenic vistas or scenic resources of cumulative projects identified in Table 19-2 would not combine with any of the build alternatives to result in a cumulatively considerable interference with or disruption of scenic vistas or scenic resources. Therefore, the project's contribution **would not be cumulatively considerable** for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of Alternatives B, C, and D would avoid or minimize cumulative effects related to scenic vistas and scenic resources.

For the purposes of NEPA, additional mitigation measures have been incorporated into Alternative E to further reduce to the extent feasible the cumulative effects on scenic vistas and scenic resources.

## Cumulative Impact 3.7-3: Cumulative increase in light and glare

New projects would not result in substantial night lighting and glare, because standard design practices would limit illumination. Also, codes, regulations, and design standards pertaining to lighting associated with any new developments would limit illumination. Design standards would control exterior materials of all new buildings and minimize reflectivity. Therefore, for the purposes of CEQA and TRPA, **no cumulative adverse impacts** from light and glare as a result of the US 50/South Shore Revitalization Project and cumulative projects listed in Table 19-2 within the geographic scope of the cumulative effects analysis would occur.

For the purposes of NEPA, design features of Alternatives B, C, D, and E would avoid or minimize cumulative effects related to light and glare.

# **Cultural Resources**

Because the project would result in no impacts on unique ethnic values or existing religious or sacred uses, the cumulative impact analysis focuses only on potential cumulative impacts on historic resources, archaeological resources, and human remains.

### Cumulative Impact 3.8-1: Cumulative impacts on historical resources

The cumulative context for historical resources is the Lake Tahoe Basin. The cultural reports prepared for the US 50/South Shore Community Revitalization Project identified three resources in or near the study area (Friday's Station, Pony Express Rider statue, and site 26 Do 451) as being eligible for or already listed in the NRHP. The reasonably foreseeable projects in the cumulative list and the US 50/South Shore Community Revitalization Project these resources as they would not cause the physical destruction, alteration, or removal of these resources and would not change the character of the properties or cause their neglect, transfer, lease, or sale. Therefore, for the purposes of CEQA and TRPA, implementation of the build alternatives **would not result in a cumulatively significant impact** on historical resources.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects such that there **would not be an adverse cumulative effect** on historical resources.

### Cumulative Impact 3.8-2: Cumulative impacts on unique archaeological resources

The cumulative context for archaeological resources is the Truckee-Tahoe Basin portion of the Washoe territory. There are no known archaeological resources that would be damaged or destroyed by the build alternatives (Alternatives B, C, D, and E) or the reasonably foreseeable projects included in the cumulative list. Thus these alternatives would have **no impact** on known archaeological resources. Project construction related to the build alternative or the cumulative projects could encounter previously undiscovered or unrecorded archaeological sites and materials during project-related preconstruction or construction-related ground disturbing activities. These activities could damage or destroy these archaeological resources. However, implementation of Mitigation Measures 3.8-2a, 3.8-2b, and 3.8-2c would reduce potentially significant impacts on archaeological resources because mitigation would be developed and implemented in

coordination with the appropriate federal, state, and/or local agency(ies) to avoid, move, record, or otherwise treat the resource appropriately, in accordance with pertinent laws and regulations. For the purposes of CEQA and TRPA, by providing an opportunity to avoid disturbance, disruption, or destruction of archaeological resources, implementation of the build alternatives **would not result in a cumulatively significant impact** on unique archeological resources.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects on unique archeological resources.

## Cumulative Impact 3.8-3: Cumulative impacts on human remains

Because of the likelihood that any undiscovered or unknown human remains would be Native American in origin, the cumulative context for human remains is the Truckee-Tahoe Basin portion of the Washoe territory. The Truckee-Tahoe Basin has been inhabited by prehistoric and historic people for thousands of years. The loss of any one archaeological site or human remains could affect the scientific value of others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. The proposed US 50/South Shore Community Revitalization Project, in combination with other development in the Truckee-Tahoe Basin could contribute to the disturbance of human remains due to project-related construction activities. However, with implementation of Mitigation Measure 3.8-3, adverse effects on undiscovered or unknown human remains would be avoided. With implementation of these measures, the project would not contribute to a cumulative loss of undiscovered or unknown human remains, and the US 50/South Shore Community Revitalization Project contribution to the cumulative impact **would not be cumulatively considerable** for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects on undiscovered or unknown human remains.

### Cumulative Impact 3.8-4: Cumulative impacts on tribal cultural resources

The cumulative context for archaeological resources is the Truckee-Tahoe Basin portion of the Washoe territory. Construction and excavation activities associated with the build alternatives and the reasonably foreseeable projects in the cumulative list could result in sediment disturbance and removal, which can adversely affect archaeological resources, including tribal cultural resources. There are no known tribal cultural resources that would be damaged or destroyed by Alternatives B, C, D, and E and thus these alternatives would have no impact on known tribal cultural resources. Because Alternatives B, C, D, and E would include excavation and other ground-disturbing activities, these alternatives could result in adverse physical effects on unknown tribal cultural resources. This impact would be potentially cumulatively considerable for Alternatives B, C, D, and E. There would be no impact under Alternative A. However, implementation of Mitigation Measures 3.8-4a and 3.8-4b would reduce potentially significant impacts on tribal cultural resources because mitigation would be developed and implemented in coordination with the appropriate federal, state, and/or local agency(ies) to avoid, move, record, or otherwise treat the resource appropriately, in accordance with pertinent laws and regulations. For the purposes of CEQA and TRPA, by providing an opportunity to avoid disturbance, disruption, or destruction of tribal cultural resources, implementation of the build alternatives would not result in a cumulatively significant impact on unique tribal cultural resources.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects on tribal cultural resources.

# **Floodplains**

# Cumulative Impact 3.9-1: Cumulative 100-year flood hazard and floodplain impacts

The cumulative impacts of floodplain development should be considered in the context of the local watershed. The project could result in modification of the floodplain of Edgewood Creek, within the Edgewood Creek watershed. The potential flood hazard risks to people and property are low within the Edgewood Creek watershed since very little development has been located within floodplain areas. The

exception to this is the Edgewood Lodge and golf course, which utilizes the outlet structure of Friday Station Pond to regulate the flows of Edgewood Creek and protect Edgewood property. Although the implementation of the project would require some alteration of the 100-year floodplain of Edgewood creek, the project would be required to meet Douglas County design standards for development within floodplains. These standards prohibit any floodplain encroachment that would raise the Base Flood Elevation of the 100-year flood by more than 1 foot (Douglas County Code Section 20.50.160). This standard applies to the project as well as to cumulative projects within the Edgewood Creek Watershed which include: the Edgewood Lodge and Golf Course Realignment Project; the Gondola Vista project; the Linking Tahoe: Active Transportation Plan; the Van Sickle Bi-State Park Master Plan; and the Zalanta at the Village project. Because strong protections exist that prevent development projects from adversely impacting floodplains or exposing downstream properties to increased risk, implementation of the project and other cumulative projects within the Edgewood Creek watershed **would not result in a cumulatively significant impact** on a 100-year floodplain for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to floodplain impacts.

# Water Quality and Stormwater Runoff

Cumulative impacts on water quality are considered in the context of the Lake Tahoe Region. Rapid development during the 1960s is believed to be the cause of the Lake's decline in clarity (Lahontan RWQCB and NDEP 2010) and the existing adverse cumulative condition. Lake Tahoe was listed as an impaired water under Section 303(d) of the Clean Water Act, and a Total Maximum Daily Load (TMDL) was established to reverse the downward trend in water quality and bring Lake clarity back to levels seen in 1967–1971. Regulatory agencies have recognized the threats to water quality in the Lake Tahoe Region and have adapted their policies to reflect the TMDL requirements and protect this unique natural resource. As such, a significant cumulative threat to water quality is known to be present in the Region.

# Cumulative Impact 3.10-1: Cumulative degradation of surface water quality due to construction activities

Construction of the project and the cumulative projects, through construction-related disturbance, changes to stormwater runoff patterns, or pollutant loading in stormwater runoff (including melt water from snow storage areas), have the potential to increase the volume of stormwater runoff, thereby increasing the concentrations of fine sediment particles, nutrients, and other pollutants in the surface water and groundwater of the Lake Tahoe Basin. Improper snow storage in unprotected areas or near SEZs can also introduce pollutants into surface water and groundwater. These potential effects are minimized through compliance with a suite of protective regulations. Any project exceeding 1 acre in size is required to develop a SWPPP that identifies water quality controls consistent with Lahontan RWQCB (for California projects) or NDEP (for Nevada projects) and TRPA regulations. The SWPPP must include construction site BMPs, a spill prevention plan, daily inspection and maintenance of temporary BMPs, and post-construction BMPs to protect water quality during the life of the project. Because of the strong protective water quality regulations within the Lake Tahoe Region, the potential effects of the project would be minimized such that the project **would not result in a cumulatively considerable contribution** to the degradation of surface water quality for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to degradation of surface water quality due to construction activities.

### Cumulative Impact 3.10-2: Cumulative degradation of surface water quality due to operational activities

The project and the cumulative projects, through increases in land coverage, have the potential to increase the volume of stormwater runoff, thereby increasing the concentrations of fine sediment particles, nutrients, and other pollutants in the surface water and groundwater of the Lake Tahoe Basin. Improper use of fertilizers and snow storage in unprotected areas or near SEZs can also introduce pollutants into surface water and groundwater. TRPA, Lahontan Regional Water Quality Control Board, and Nevada Division of Environmental Protection require all projects to include permanent water quality BMPs that control sources of sediment and urban pollutants. Any project with a landscaping or vegetation component must develop a

fertilizer management plan and snow storage areas must be located away from SEZs and equipped with any necessary BMPs. Additionally, because retrofitting of existing development with water quality BMPs has been difficult to enforce, water quality improvements are often implemented through new development or redevelopment processes, where these BMPs are required as a condition of permit approval. The project would also include additional measures that would result in water quality benefits, including stormwater improvements on the portion of US 50 between the intersection of Lake Parkway to State Route 207, stormwater improvements on Stateline Avenue, and installing sediment traps at all existing drainage inlets within the project site. Because of the strong protective water quality regulations within the Lake Tahoe Region and with the added benefits from water quality improvements made by the project, the potential effects of the project would be minimized such that the project **would not result in a cumulatively considerable contribution** to the degradation of surface water quality for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to degradation of surface water quality due to operational activities.

#### Cumulative Impact 3.10-3: Cumulative stormwater runoff

As discussed above, the increases in impervious surfaces resulting from the project and many of the cumulative projects would result in a corresponding increase in the volume of runoff generated within each project site. Stormwater runoff acts as a vector to carry urban pollutants into surface waters. Additionally, concentrated runoff can cause erosion and generate additional sediment. Although these projects would increase impervious surfaces, TRPA requires that each individual project be designed to infiltrate the 20-year, 1-hour design storm event. In special circumstances where this is not feasible, the project must provide documentation that its stormwater is fully infiltrated by an off-site facility (TRPA Code of Ordinances Section 60.4). Because the project would be required to fully infiltrate runoff on-site or demonstrate that its runoff can be accommodated by shared stormwater infrastructure off-site, the impacts of the project would be minimized. Although the project would affect several parcels occupied by Rocky Point Stormwater Project facilities, Mitigation Measure 3.10-3 would require the project applicant to demonstrate the continued functionality of those facilities at their reduced size and, if a design solution renders those improvements no longer necessary, to return the public funds used to purchase the parcels. Therefore, the project **would not result in a cumulatively considerable contribution** to existing water quality degradation in the Lake Tahoe Region for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects related to stormwater runoff.

### Cumulative Impact 3.10-4: Cumulative potential to affect the quality, flow, or direction of groundwater

Groundwater resources can be affected by infiltration of polluted stormwater in areas of shallow groundwater, such as SEZ or riparian habitats. TRPA regulates excavation beyond 5 feet in depth that could intercept the seasonal groundwater table. The project site and many of the cumulative project areas would include shallow groundwater habitats or excavation beyond 5 feet. However, all runoff or water discharged to soils would be required to meet the TRPA effluent limits described in Section 60.1.3 of the TRPA Code of Ordinances. In cases with a shallow groundwater table and where a direct hydrologic connection exists between groundwater and surface water, discharge to groundwater must meet surface water discharge standards. TRPA's prohibition on excavation beyond 5 feet in depth is intended to prevent interception of groundwater in a way that could alter the rate or direction of flow. The project and all cumulative projects would be required to prepare a soils/hydrologic report that demonstrates that no groundwater interference would occur or that measures are incorporated to maintain groundwater flows, avoid impacts on SEZ vegetation, and prevent any groundwater from leaving the project area as subsurface flow. Because TRPA regulations are in place to prevent groundwater contamination and to prevent interference with the rate or direction of groundwater flow, the project **would not result in a cumulatively considerable contribution** to cumulative impacts on groundwater resources for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to groundwater.

# Geology, Soils, Land Capability, and Coverage

Impacts related to seismic and other geologic hazards (Impact 3.11-3) are localized in nature; they do not accumulate to cause broader environmental consequences and **cumulative impacts would not occur**. Therefore, these issues are not discussed further for the purposes of NEPA, CEQA, and TRPA.

# Cumulative Impact 3.11-1: Cumulative soil compaction and land coverage

The Bailey land classification system (Bailey 1974) provides structure for land development within the Lake Tahoe Basin. This system emphasizes prevention of resource damage by directing development toward the most resilient soils and protecting the natural functions of soils. Development before TRPA adopted the Bailey System resulted in excess land coverage in land capability districts (LCDs) 1b and 2 (TRPA 2012c), creating a cumulative adverse condition.

The project and many of the cumulative projects would create additional land coverage within the study area; however, all projects within the Basin would be required to comply with TRPA land coverage regulations. In cases where excess coverage is permitted (such as within Town Centers or for linear public facilities, public health and safety facilities, or water quality control facilities), all coverage exceeding the base allowable would be purchased and transferred from within hydrologically related areas or retired from sensitive lands. In addition, all land coverage within LCD 1b (Stream Environment Zones) must be mitigated at a ratio of 1.5 acres of restoration for every 1 acre of disturbance (in accordance with TRPA Code Section 30.5.3). Although development before the implementation of the Bailey System resulted in an adverse cumulative condition relative to land coverage, TRPA's existing regulatory framework is structured to protect soil resources and reduce land coverage within sensitive LCDs. Therefore, the project and the cumulative projects would not result in a cumulatively considerable contribution to cumulative soil compaction and land coverage issues within the Lake Tahoe Basin for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to soil compaction and land coverage.

# Cumulative Impact 3.11-2: Cumulative erosion and alteration of topography during construction

The project and the cumulative projects would result in soil disturbance that could cause erosion; however, all construction projects in the Tahoe Region must meet requirements and regulations of TRPA, Lahontan RWQCB, NDEP, and local agencies. In addition, all construction projects located in California with greater than 1 acre of disturbance are required by Lahontan RWQCB to submit an NPDES permit, which includes preparation of a SWPPP that includes site-specific construction site monitoring and reporting. In Nevada, projects are required to comply with NDEP's Stormwater General Permit, which also includes a requirement for the preparation and implementation of a SWPPP. Project SWPPPs are required to describe the site, construction activities, proposed erosion and sediment controls, and maintenance requirements for temporary BMPs. Temporary BMPs to protect water quality would be required during all site development activities.

The robust regulatory requirements of TRPA and other federal, state, and local agencies ensure that the project and the cumulative projects would implement erosion and sediment controls such that individual projects would not contribute to soil erosion impacts. Therefore, the project and cumulative development **would not result in a cumulatively considerable contribution** to adverse soil erosion conditions for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to erosion and alteration of topography during construction.

# Hazards, Hazardous Materials, and Risk of Upset

# <u>Cumulative Impact 3.12-1: Cumulative exposure of people or the environment to hazards because of the routine use, storage, or transport of hazardous materials or from accidental release or upset</u>

Although some hazardous materials releases can cover a large area and interact with other releases (e.g., atmospheric contamination, contamination of groundwater aquifers), incidents of hazardous materials contamination are more typically isolated to a small geographic area. These relatively isolated areas of contamination typically do not combine in a cumulative manner with other sites of hazardous materials contamination. On the project site and in its vicinity, there are no identified incidents of widespread hazardous materials contamination with different sources of contamination interacting on a cumulative basis. Future projects that would include construction activities and add new residences, commercial uses, and infrastructure similar to those identified for the project (see Table 3.19-2) may use, store, and generate hazardous materials; however, these projects would be subject to existing federal, state, and local hazardous materials regulations, limiting the potential for releases and contamination and requiring clean-up when such events occurred. Given these conditions, there **would not be a significant cumulative impact** related to hazardous materials for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to hazardous materials.

The project would result in the routine use, storage, and transport of hazardous materials as part of the construction and operation of the project. The project would be required to comply with existing federal, state, and local hazardous materials regulations would apply, limiting the potential for releases and contamination and requiring clean-up when releases/contamination do occur. Also, as described above, interactions among multiple hazardous materials releases on a cumulative basis typically require close proximity between the releases. In addition, the potential for the project to expose people or the environment to hazardous materials would be reduced through proper safety precautions and compliance with applicable regulations as described in Impact 3.12-1. Therefore, the project **would not result in a cumulatively significant impact** related to the exposure of people and the environment to hazards for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to the exposure of people and the environment to hazards.

# Cumulative Impact 3.12-2: Cumulative exposure to recognized environmental conditions (RECs)

The geographic area for cumulative impacts related to exposure to RECs would be limited to the study area and areas immediately adjacent to the project site. There are no identified incidents of widespread hazardous materials contamination with different sources of contamination on the project site or in its vicinity that would combine to create a cumulative impact.

While Impact 3.12-2 identifies a potentially significant impact related to exposure to RECs or encountering previously unknown contaminants onsite, the impact associated with encountering onsite RECs or unknown contaminants is site-specific and would be limited to the immediate project site; therefore, it would not combine cumulatively with other contamination. The project's potentially significant project-level impacts related to recognized environmental conditions would be reduced to a less-than-significant level with implementation of Mitigation Measures 3.12-2a, 3.12-2b, 3.12-2c, and 3.12-d. For these reasons, the project would not result in a cumulatively significant impact related to recognized environmental conditions for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects related to recognized environmental conditions.

# <u>Cumulative Impact 3.12-3: Cumulative exposure of people or structures to a significant risk involving wildfires</u>

The Tahoe Region is a high fire hazard area, with past fires resulting in loss of life, major losses of property, and substantial damage to habitat and environmental resources. Past fire suppression and other forest land management has allowed fuels to accumulate in many areas, contributing to the severity of wildfires when they do occur. Past development in the forested landscape has increased the risk to life and property when fires do occur, and increased the potential for ignition of wildland fires through increased human presence and activity. Future projects included in the cumulative project list will continue this trend to varying degrees. Past and present fuels management projects minimize wildland fire risk; however, even with these projects, the combined effects of past, present, and reasonably foreseeable future projects have resulted in a significant cumulative risk related to wildland fire hazard.

The project includes construction of homes, businesses, or other occupied structures; however, the project would be located within an already developed area. The project does not include uses that would increase ignition risk and it is in an area with a local fire department. Project construction and operation would comply with all applicable regulations regarding fire prevention, fire suppression, and fire-safe construction. Therefore, even though the project is located in an area with moderate to high fire risk, the project does not make a considerable contribution to wildland fire hazards. Therefore, the project **would not result in a cumulatively considerable contribution** to existing, cumulative wildland fire hazards for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to existing wildland fire hazards.

# **Air Quality**

<u>Cumulative Impact 3.13-1: Cumulative short-term, construction-generated emissions of criteria air pollutants and precursors</u> Due to the temporary and relatively short-term nature of construction activities, emissions of ROG, NO<sub>X</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> would be considered local impacts that would generally be limited to the project site. Nonetheless, the regional setting is used to describe the existing air quality conditions, which would also be true for the project site.

The Lake Tahoe Air Basin (El Dorado and Placer Counties in California) and the Nevada Counties (Washoe, Carson, Douglas) are in attainment or designated unclassified for all National Ambient Air Quality Standards (National AAQS). The LTAB is designated nonattainment for ozone and PM<sub>10</sub> per California AAQS. Thus, no existing adverse cumulative condition occurs on the Nevada side of the Basin whereas a cumulative adverse condition does occur on the California side of the Basin with respect to ozone and PM<sub>10</sub>. CO is an attainment pollutant for both national and state standards within the Lake Tahoe Basin. No existing cumulative adverse impact exists.

Construction activities associated with the transportation improvements and mixed-use development, including replacement housing, would result in exceedance of applicable daily NO<sub>x</sub> levels and would result in fugitive dust emissions of  $PM_{10}$  and  $PM_{2.5}$ . However, implementation of Mitigation Measures 13.1-1a would reduce estimated NO<sub>x</sub> emissions by 20 percent, 25 percent, or 60 percent depending on the construction activities that take place and specific measures implemented, as outlined by the measure. Mitigation Measure 3.13-1b would ensure that fugitive dust emissions are contained on the project construction site. Provided that exhaust emissions would be reduced to a less than significant level, CO emissions would also not be considered significant.

Based on Table 3.19-2, there are numerous developments within the Tahoe Basin where construction activities could potentially overlap with construction of the project. Of these projects, the closest to the project site include, Beach Club, Bijou Park Creek Watershed Management/Southwest Corner Project, and Gondola Vistas. Of these projects, the Gondola Vistas development of 22 housing units is located adjacent to the project site. This project could only occur with implementation of Alternative E.

With implementation of alternatives B, C, and D the closest project that could potentially combine with the project is the Beach Club development, which includes 143 housing units. However, this project is located over 2,500 feet away from the project site (to the north along Kahle Drive) and given the local and temporary nature of criteria air pollutants and precursors associated with construction, project-generated construction emissions would not combine with emissions from construction of this or any other project. Implementation of Alternative E would allow the proposed Gondola Vistas project to occur. Nonetheless, if this project were to occur at the same time as the construction of Alternative E, given that estimated emissions from Alternative E would not exceed any applicable threshold of significance, and the relatively small size of the proposed Gondola Vistas project (i.e., up to 22 housing units), emissions from this project would also be relatively minor and therefore would not combine the Alternative E such that a cumulatively significant impact would occur.

Therefore, because project-generated construction-related emissions would not result in a significant shortterm impact to air quality with implementation of Mitigation Measures 3.13-1a and 3.13-1b and would not combine with construction emissions of other foreseeable projects such that a cumulatively considerable impact would occur, the project **would not result in a cumulatively significant impact** related to short-term air quality impacts for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects related to short-term air quality impacts.

#### Cumulative Impact 3.13-2: Cumulative consistency with air quality plans and regional transportation conformity

The cumulative context with regards to long-term emissions of criteria air pollutants would include the entire Lake Tahoe Basin. The California portion of the Basin, including El Dorado County and Placer County are within the California Air Resources Board-designated Lake Tahoe Air Basin (LTAB). On the Nevada side, the Lake Tahoe Basin includes the western portions of Douglas and Carson County, and the southwest portion of Washoe County.

The LTAB (El Dorado and Placer County in California) and the Nevada Counties are in attainment or designated unclassified for all National AAQS. The LTAB is designated nonattainment for ozone and PM<sub>10</sub> per California AAQS. Thus, no existing adverse cumulative condition occurs on the Nevada side of the Tahoe Basin whereas a cumulative adverse condition does occur on the California side of the Tahoe Basin with respect to ozone and PM<sub>10</sub>.

The TMPO RTP/SCS (i.e., Mobility 2035) and the Regional Plan are the two primary plans in place to direct growth and development within the cumulative context of the project. The intent of the RTP/SCS is to accommodate the expected growth in the Region in a way that improves traffic flow and mobility of residents and visitors to the Region, and reduces regional and localized traffic congestion. The Regional Plan is the primary guiding document for land use decisions and development allocation in the Basin.

The project helps achieve the traffic flow and mobility goals of the RTP/SCS. Basin-wide VMT and mobilesource emissions associated with VMT were modeled and included in the TMPO RTP/SCS. Mobile-source emissions associated with the RTP/SCS were found to decrease over the plan implementation period, because of increasingly stringent vehicle emission standards. These emissions estimates were based on outputs from the regional transportation model for plan buildout and represent a future year of 2035. Because long-term regional emissions would decrease over the plan period, RTP/SCS implementation would not conflict with attainment maintenance efforts and would contribute to TRPA 's attainment and maintenance of air quality standards and thresholds. In addition, although the project-specific traffic study considered a future build-out year of 2040, similar trends of decreasing emissions would be anticipated beyond the 2035 plan year. Thus, because the Project is included within the RTP/SCS list of projects and was contemplated in the RTP/SCS EIR/EIS, implementation of the project **would not result in a cumulatively considerable contribution** to significant long-term operational regional air quality impacts for the purposes of CEQA and TRPA. For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to significant long-term operational regional air quality impacts.

## <u>Cumulative Impact 3.13-3: Cumulative transportation conformity with respect to localized, long-term mobile-source carbon</u> <u>monoxide emissions</u>

CO is an attainment pollutant for both national and state standards within the Lake Tahoe Basin. No existing cumulative adverse impact exists. As discussed under Impact 3.13-3, the project would not result in any potential for local CO concentrations at any affected intersection during operation. This would not change with the addition of the reasonably foreseeable projects listed in Table 3.19-2. Further, based on the traffic study conducted for the project, maximum peak-hour trips would not exceed applicable screening levels of 31,600 vehicles during project operation or in the future cumulative year (i.e., 2040). Additionally, modeling results shown in Appendix J indicate that project-related CO emissions would not cause or contribute to any new or worsened localized violations of the federal 1-hour or 8-hour CO ambient standards on a cumulative basis. Implementation of the project would not result in a cumulatively considerable contribution to long-term operational regional air quality impacts with respect to CO emissions for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to long-term operational regional air quality impacts with respect to CO emissions.

## Cumulative Impact 3.13-4: Cumulative exposure of sensitive receptors to air toxics

Due to the highly dispersive properties of air toxic contaminant (TAC) emissions, associated impacts would be generally limited to the project site (construction-related TACs and mobile source air toxics [MSAT]) and the affected intersections and roadway segments (operational-related MSAT), generally within 1,000 feet of TAC/MSAT sources.

For construction activities, diesel PM is the primary toxic air contaminant of concern. Construction-related activities would result in short-term project-generated emissions of diesel PM from the exhaust of off-road heavy-duty diesel equipment. On-road diesel-powered haul trucks and worker commute vehicles (MSAT other than diesel PM are associated with gasoline engines) traveling to and from the construction area to deliver materials and equipment are less of a concern because they would not stay on the site for long durations. As discussed under Impact 3.13-4, construction would be relatively short and associated TAC and MSAT emissions would disperse rapidly from the source.

As discussed above, numerous projects are proposed within the Tahoe Basin that could be constructed during the same time frame as the project (e.g., Gondola Vistas, Beach Club, and Bijou Park Creek Watershed Management/Southwest Corner). However, these projects are relatively small in comparison to the project and therefore emissions and construction duration would be less as compared to the project. Further, due to the local nature of health impacts associated with MSAT, the receptors exposed to the highest concentrations of toxics for the longest period of time would experience the greatest impact. Thus, given that the other future planned projects are located at various distances from the project site (with the exception of Alternative E and Gondola Vista), different receptors would be exposed to MSAT emissions. Nonetheless, exposure time and concentration would minimal. Therefore, because construction periods would be relatively short, and due to the highly dispersive properties of MSAT, no one receptor would be exposed to excessive concentrations of MSAT for extended periods of time.

With implementation of Alternative E, the Gondola Vista development could occur, which would result in construction activities directly adjacent to the project. However, as described above, a project of this size (i.e., up to 22 housing units) would not result in substantial MSAT emissions and construction duration would likely be relatively short (i.e., less than 3 years). Therefore, because MSAT impacts would be limited to the project site, construction-related TAC/MSAT emissions would not be substantial, and construction duration would be short-term, no one receptor would be exposed to substantial TAC/MSAT emissions for extended periods of time.

As described in Impact 3.13-4, the amount of MSAT emitted by the build alternatives would be proportional to the VMT. While the highway realignment would result in a small increase in VMT when through trips are analyzed on their own, it is consistent with the community revitalization objectives of the approved RTP Alternative 3 and its associated beneficial reduction in regional VMT. Thus, because Alternatives B, C, and D would contribute to an overall regional reduction in VMT, higher levels of MSAT are not expected from these alternatives compared to Alternative A. Also, emissions would likely be lower than present levels in the design year as a result of the EPA's national control programs (FHWA 2016). Local conditions may differ from national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in virtually all locations.

With regards to operational-related MSAT emissions, impacts would be limited to the affected intersections and roadways segments and would be a function of daily vehicle volumes. Based on the traffic study conducted for the project, peak-summer daily traffic volumes (ADT) would not exceed applicable screening levels of 100,000 vehicles during project operation or in the future cumulative year (i.e., 2040). Implementation of the project would not expose nearby receptors to MSAT concentrations such that a cumulatively significant health risk impact would occur for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to exposing nearby receptors to TAC concentrations such that an adverse cumulative health risk effect would occur.

# **Greenhouse Gas Emissions and Climate Change**

Climate change is expected to result in a variety of effects in the study area including increased frequency and intensity of wildfires; changes to timing and intensity of precipitation resulting in increased risk from landslides associated with ground saturation, increased stormwater runoff, and increased intensity of storm events that result in increased snow loading and high winds. However, there are numerous programs and policies in place, as well as design measures, that would protect against these climate change risks. These would not change for the project with the addition of the reasonable foreseeable projects listed in Table 3.19-2, and the potential cumulative impact would not change. Therefore, the vulnerability of the study area to climate change risks is not addressed further.

Environmental impacts from greenhouse gas emissions, i.e., contributions to climate change, are inherently cumulative in nature and are discussed in Impact 3.14-1 in Section 3.14, "Greenhouse Gas Emissions and Climate Change."

# **Noise and Vibration**

The geographic scope for analyzing the cumulative impacts of noise and vibration is the study area. The project-level analysis in Section 3.15, "Noise and Vibration," is divided into the existing-plus-project (2020) scenario and the cumulative-plus-project (2040) scenario. The cumulative-plus-project analysis involves impacts of the potential construction of mixed-use development, proposed with Alternatives B, C, and D, which would take place beyond 2020. As such, the cumulative-plus-project analysis contained in Section 3.15 also constitutes a cumulative impact analysis because it incorporates long-term impacts of the cumulative projects identified in Table 3.19-2. Therefore, this discussion of cumulative noise and vibration impacts summarizes the cumulative-plus-project analysis provided in Section 3.15.

### Cumulative Impact 3.15-1: Short-term construction noise levels

Alternative A would not include any noise-generating construction or demolition activity for the project itself; therefore, there would be **no cumulatively considerable contribution** to construction noise impacts with Alternative A for the purposes of CEQA and TRPA.

Because of the reasons stated above, for the purposes of NEPA, there **would not be an adverse cumulative contribution** to construction noise impacts from Alternative A.

Construction and demolition activity that would occur with Alternatives B, C, and D transportation improvements and mixed-use development, including replacement housing, would take place during the less noise-sensitive time of day and comply with the requirements of TRPA's Best Construction Practices Policy for the Minimization of Exposure to Construction-Generated Noise and Ground Vibration. Therefore, for the purposes of CEQA and TRPA, implementation of Alternatives B, C, and D would not result in a cumulatively considerable contribution to construction noise impacts.

For the purposes of NEPA, design features of the Alternatives B, C, and D would avoid or minimize cumulative effects related to construction noise impacts.

Alternative E would include construction activity during noise-sensitive evening nighttime hours that could result in exceedances of applicable TRPA land use-based noise thresholds at noise sensitive receptors, as well as exceedances of interior noise standards at nearby hotels and residences. Implementation of Mitigation Measure 3.15-1 for Alternative E would be unlikely to adequately reduce noise levels, resulting in a **cumulatively considerable contribution to a significant and unavoidable impact** for Alternative E for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into Alternative E to further reduce to the extent feasible the cumulative effects related to construction noise impacts.

## Cumulative Impact 3.15-2: Ground vibration during construction

Alternative A would not include any construction or demolition activity that generates ground vibration for the project itself, therefore, there would be **no cumulatively considerable contribution** to construction ground vibration with Alternative A for the purposes of CEQA and TRPA.

For the purposes of NEPA, design features of Alternative A would avoid or minimize cumulative effects related to ground vibration.

Pile driving activity performed during construction of the pedestrian bridge with Alternatives B, C, and D, with and without activity on the redevelopment sites, could expose nearby buildings to ground vibration levels that exceed Federal Transit Administration's (FTA's) vibration 80-vibration decibel (VdB) standard for human response at residential land uses. This would be a significant impact for Alternatives B, C, and D. However, implementation of Mitigation Measure 3.15-2a would reduce the ground vibration impact for Alternatives B, C, and D to a level that **would not result in a cumulatively considerable contribution to impacts** for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the cumulative effects related to ground vibration.

Pile driving activity performed during construction of the Skywalk under Alternative E could expose nearby buildings and structures to ground vibration levels that exceed FTA's vibration standard of 0.20 inches/second peak particle velocity (PPV) for structural damage and FTA's vibration standard of 80 VdB for human response at residential land uses. Implementation of Mitigation Measure 3.15-2b would reduce vibration, but it is not certain that measures would reduce ground vibration levels at nearby structures to less than FTA's vibration standard. This would be a significant and unavoidable impact of Alternative E. None of the projects listed in Table 19-2 or shown on Exhibit 19-2 are located close enough to contribute to the vibration impacts associated with Alternative E. Therefore, for the purposes of CEQA and TRPA, Alternative E **would result in cumulatively considerable contributions to a significant and unavoidable impact** for ground vibration.

For the purposes of NEPA, additional mitigation measures have been incorporated into Alternative E to further reduce to the extent feasible the cumulative effects related to ground vibration.

# Cumulative Impact 3.15-3: Cumulative traffic noise exposure at existing receptors

Alternative A would not result in changes to traffic noise levels along US 50 or local roadways and, therefore, would have **no impact** to noise-sensitive receptors for the purposes of NEPA, CEQA, and TRPA.

Based on the cumulative-plus-project analysis in Section 3.15, with Alternatives B, C, and D, noise-sensitive receptors would be exposed to noise levels greater than the applicable FHWA noise abatement criteria. Existing noise-sensitive receptors in California would experience substantial increases in traffic noise under Caltrans criteria (i.e., increase of 12 decibels [dB] or more); be exposed to noise levels that exceed TRPA's applicable land use-based community noise equivalent level (CNEL) threshold; and experience a CNEL increase equal to or greater than 3 dB, which is a TRPA significance criterion and a CEQA significance criterion for receptors located in California. With all four action alternatives, multiple noise-sensitive receptors would be exposed to traffic noise levels that exceed the applicable traffic noise standard established by the City of South Lake Tahoe and existing hotels would be exposed to interior noise levels that exceed the interior noise standard of 45 CNEL. Mitigation Measures 3.15-3a, 3.15-3b, and 3.15-3c would reduce these impacts under Alternatives B, C, and D, respectively, reducing the impacts to less than the TRPA Noise thresholds, but which are considered significant and unavoidable for the purposes of NEPA and CEQA environmental compliance. Therefore, the Alternatives B, C, and D would result in cumulatively considerable contributions to a significant and unavoidable impact for the purposes of CEQA and TRPA.

Mitigation Measure 3.15-3d would apply to Alternative E and would reduce impacts to a less-than-significant level, and **would not result in a cumulatively considerable contribution** for Alternative E for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects related to traffic noise exposure at existing receptors.

<u>Cumulative Impact 3.15-4: Cumulative noise/land use compatibility of mixed-use redevelopment sites</u> Alternatives A and E would not include the potential future redevelopment of any areas within the project site. Therefore, for the purposes of NEPA, CEQA, and TRPA, there would be **no impact** pertaining to the exposure of new land uses to excessive noise levels under Alternatives A and E.

Based on the cumulative-plus-project analysis in Section 3.15, common outdoor activity areas could be included on the mixed-use redevelopment sites that would potentially be developed under Alternatives B, C, and D. These common outdoor activity areas could be exposed to traffic noise levels that exceed the City of South Lake Tahoe's 60 CNEL standard. This would be a potentially significant impact for purposes of NEPA and CEQA compliance. Noise-reducing Mitigation Measure 3.15-4 would reduce this impact to a less-than-significant level, however. Therefore, for the purposes of CEQA and TRPA, Alternatives B, C, and D would not result in cumulatively considerable contributions to noise/land use compatibility of the mixed-use redevelopment sites.

For the purposes of NEPA, additional mitigation measures have been incorporated into the Alternatives B, C, and D mixed-use development, including replacement housing, to further reduce to the extent feasible the cumulative effects related to noise/land use compatibility of the mixed-use redevelopment sites.

# **Biological Environment**

Cumulative Impact 3.16-1: Cumulative disturbance or loss of common vegetation communities and wildlife habitats

The geographic context for analyzing the cumulative effects on vegetation communities, wildlife habitats, and other biological resources is the Tahoe Region. As described in Impact 3.16-1, under three of the build alternatives (Alternatives B, C, and D), the proposed US 50/South Shore Community Revitalization Project would result in the removal or disturbance of 0.5 to 1.7 acres of common natural vegetation communities and habitats – Jeffrey pine and low sagebrush. This conversion, when combined with the cumulative projects within these vegetation types, could contribute to the cumulative reduction of these vegetation communities

within the region. Because these habitats are common, abundant, and widely distributed locally and regionally, implementing any of the action alternatives, when combined with past, present, and reasonably foreseeable future projects, would not threaten, regionally eliminate, or contribute to a substantial reduction in the distribution or abundance of habitat for common vegetation communities and wildlife habitats in the region. Additionally, the impact is reduced by ongoing forest restoration projects that will result in long-term improvement to the quality and functions of forest habitats in some locations. Therefore, for the purposes of CEQA and TRPA, the project-related minor loss of common vegetation communities **would not result in a cumulatively considerable contribution** to the overall cumulative effect on common vegetation communities and wildlife habitats in the Tahoe Region.

For the purposes of NEPA, design features of the build alternatives would avoid or minimize cumulative effects related to the overall cumulative effect on common vegetation communities and wildlife habitats in the Tahoe Region.

# <u>Cumulative Impact 3.16-2: Cumulative disturbance or loss of sensitive habitats (jurisdictional wetlands, riparian vegetation, SEZ, aquatic habitat)</u>

The geographic context for analyzing the cumulative effects on sensitive habitats is the Tahoe Region. Construction of Alternatives B, C, and D would result in direct removal and disturbance of sensitive habitats, including waters of the United States, riparian habitat, and SEZs. Decades of growth and development, Comstock-era logging, hydrologic modification, livestock grazing, and fire suppression activities in the Tahoe region have resulted in an overall significant cumulative effect on these sensitive habitat types. As of 2011, it was estimated that 75 percent of marsh habitat and 50 percent of meadow habitats in the Tahoe Basin have experienced some level of functional degradation (TRPA 2012c). Attainment status for meadow and wetland habitats are somewhat worse than TRPA threshold targets and riparian deciduous habitats in the Tahoe Basin are considerably worse than TRPA threshold targets (TRPA 2016).

As described in Impact 3.16-2, construction or expansion of roadway alignments, roadway features (e.g., curbs, gutters, retaining walls), and other project elements could result in minor vegetation removal or trampling, fill of wetlands, hydrologic changes, deposition of dust or debris, soil compaction, or other disturbances that could temporarily affect the condition and function of sensitive habitats. Additionally, any project-related construction adjacent to wetlands or other sensitive habitat could similarly indirectly or directly affect those resources unless effective best BMPs and other appropriate resource protection measures are implemented. Construction activities under any build alternative would be required to comply with existing federal, state, and local regulations and permitting requirements that protect wetland, riparian, and other sensitive habitats. Within the Tahoe Basin, project construction would be required to comply with TRPA policies regarding SEZs. Implementation of Mitigation Measures 3.16-2a, 3.16-2b, and 3.16-2c would require that sensitive habitat is avoided to the extent feasible and that sensitive habitats that cannot be avoided are restored following construction. If the habitat cannot be restored, the project proponent would be required to compensate for unavoidable losses in a manner that results in no net loss of sensitive habitats and meets TRPA mitigation requirements for impacts on SEZs. Based on the no net loss standard, for the purposes of CEQA and TRPA, the project would not result in a cumulatively considerable contribution to the overall significant cumulative effect on sensitive habitats in the Tahoe Region.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects related to the overall significant cumulative effect on sensitive habitats in the Tahoe Region.

### Cumulative Impact 3.16-3: Cumulative tree removal

The geographic context for analyzing the cumulative effects on forest land is the Tahoe Region. Tree removal in the Tahoe Region began in the late 1800s as logging to support silver mining in Nevada, and since the early 1900s has been primarily related to reduce fire fuels or to enhance forest health. In addition, conversion of forest land to non-forest uses has occurred in the project region as a result of habitat conversions, residential and commercial development, and utility and infrastructure development.

As described in Impact 3.16-3, Alternatives B, C, D, and E would result in substantial tree removal, as defined by TRPA Code Section 61.1.8. However, Mitigation Measure 3.16-3 would require that a tree removal, protection, and replanting plan is prepared, which would ensure that all necessary protection measures are implemented and thus ensuring that Code requirements are met. In terms of the environmental effect of project alternatives, trees removed as part of the action alternatives are only a small proportion of the amount of trees located in the Tahoe Region (i.e., less than 0.1 percent) and tree replanting would compensate for the contribution of this project to cumulative tree removal. The project's effects would not result in substantial changes in stand structure or composition or in the distribution of forest land in the Region. Therefore, implementation of any of the action alternatives would not substantially reduce the size, continuity, or integrity of forest land in the project area or interrupt the natural processes that support forest land and **would not result in a cumulatively considerable contribution** to overall tree removal impacts in the Region for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects on overall tree removal impacts in the Region.

## Cumulative Impact 3.16-4: Cumulative introduction and spread of invasive plants

Past projects and activities have resulted in the introduction and spread of various noxious weeds and invasive species in the project region, resulting in habitat degradation and other adverse effects on biological resources. Existing and foreseeable future projects have the potential to continue this trend, although current policies, regulations, and programs currently minimize the potential for the further spread of noxious weeds and invasive species and the introduction of new species. The current presence and spread of noxious weeds and invasive species in the project region is considered a significant cumulative impact. Implementing Alternatives B, C, or D has the potential to introduce and spread noxious weeds and invasive species during project construction and post-construction revegetation activities. Nearby source populations could passively colonize disturbed ground, or attach to personnel or equipment and be transported to the project area from an infested area. Soil, vegetation, and other materials transported to the project area from off-site sources for BMP, revegetation, or fill for project construction could contain invasive plant seeds or plant material that could become established in the project area. Additionally, invasive species currently present in or near the project area have the potential to be spread by construction disturbances. However, through implementation of Mitigation Measure 3.16-4, invasive plant species management practices would be implemented during project construction and the inadvertent introduction and spread of invasive plants from project construction would be prevented. With this mitigation measure, the project would not contribute substantially to the establishment and spread of noxious weeds and other invasive plant species in the project region, and therefore, would not contribute considerably to an overall significant cumulative impact for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the build alternatives to further reduce to the extent feasible the cumulative effects related to an overall significant cumulative impact related to the introduction and spread of invasive plants.

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