

2020 Linking Tahoe: Regional Transportation Plan & Sustainable Communities Strategy

Initial Study – Mitigated Negative Declaration/
Initial Environmental Checklist – Mitigated Finding of No
Significant Effect

prepared by

Tahoe Regional Planning Agency
Long Range & Transportation Planning
128 Market Street
Stateline, Nevada 89449

Contact: Rebecca Cremeen, Associate Planner

prepared with the assistance of

Rincon Consultants, Inc.
4825 J Street, Suite 200
Sacramento, California 95819

April 2021



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

rinconconsultants.com

Table of Contents

Executive Summary	1
Project Synopsis	1
Summary of Impacts and Mitigation Measures	2
1 Introduction	3
1.1 Project Background	3
1.2 Document Organization	5
2 Project Description	7
2.1 Project Title	7
2.2 Contact Person and Phone Number	7
2.3 Lead Agency Name and Address	7
2.4 Project Location	7
2.5 Project Objectives	10
2.6 Project Characteristics	14
2.7 Required Approvals	25
2.8 Relationship with Other Plans and Programs	25
2.9 Tribal Consultation Pursuant to Public Resources Code Section 21080.3.1	26
3 Initial Study/Initial Environmental Checklist	27
Environmental Factors Potentially Affected	31
CEQA Environmental Determination	31
TRPA Environmental Determination	32
4 Evaluation of Impacts	33
1 Aesthetics	33
2 Agriculture & Forestry Resources	49
3 Air Quality	53
4 Biological Resources	69
5 Cultural Resources	91
6 Energy	99
7 Geology and Soils	103
8 Greenhouse Gas Emissions	113
9 Hazards and Hazardous Materials	129
10 Hydrology and Water Quality	139
11 Land Use and Planning	154
12 Mineral Resources	158
13 Noise	160
14 Population and Housing	174

15	Public Services.....	180
16	Recreation.....	188
17	Transportation.....	196
18	Tribal Cultural Resources.....	208
19	Utilities and Service Systems.....	212
20	Wildfire.....	220
21	Mandatory Findings of Significance.....	228
5	References.....	236
5.1	Bibliography.....	236
5.2	List of Preparers.....	242

Tables

Table 1	New Financially Constrained 2020 RTP/SCS Projects.....	18
Table 2	Impact Topics Organization.....	28
Table 3	Air Quality Monitoring in the Plan Area.....	55
Table 4	2020 RTP/SCS VMT Data.....	60
Table 5	2020 RTP/SCS Net Change in Daily Basin-wide Operational Emissions (2018-2045).....	63
Table 6	Special Status Plant Species Known to Occur or with Potential to Occur in the Vicinity of the Plan Area since 2012.....	74
Table 7	Special Status Animal Species Known to Occur or with Potential to Occur in the Vicinity of the Plan Area since 2012.....	76
Table 8	2020 RTP/SCS Annual VMT Data.....	120
Table 9	Weighted Average Emissions Factors for Vehicle Travel in the TRPA Jurisdiction in 2045.....	121
Table 10	2020 RTP/SCS Net Change in Daily Basinwide Operational Emissions (2018-2045).....	124
Table 11	California side Per Capita Carbon Dioxide Emissions : Passenger Vehicles.....	126
Table 12	Typical Noise Levels for Construction Equipment.....	165
Table 13	Screening Distances for Noise Assessments – Bus Transit Projects.....	167
Table 14	Vibration Source Levels for Construction Equipment.....	169
Table 16	VMT Summary.....	201

Figures

Figure 1	Plan Area.....	9
Figure 2	New 2020 RTP/SCS Financially Constrained Corridor, Operations, and Technology Projects.....	15

Figure 3 2020 RTP/SCS Financially Constrained Active Transportation, Microtransit, and Transit Projects16

Figure 4 2020 RTP/SCS Financially Constrained Transit Projects.....17

Figure 5 Scenic Corridors in the Plan Area36

Figure 6 Vegetation Communities and Wildlife Habitats in the Northern Plan Area79

Figure 7 Vegetation Communities and Wildlife Habitats in the Southern Plan Area80

Figure 8 Forecasted Growth in VMT, Population and Visitation202

Figure 9 Fire Hazards in the Plan Area222

Appendices

Appendix A 2020 RTP/SCS versus 2017 RTP/SCS Goals and Policies Crosswalk

Appendix B 2012 and 2017 RTP/SCS Mitigation Measures

Appendix C 2020 RTP/SCS Project List

Appendix D 2020 Regional Transportation Plan Regional Forecast Report

Appendix E Air Quality Study

Appendix F Greenhouse Gas Emissions Study

Appendix G Vehicle Miles Traveled Projections and Traffic Operations Analysis

Appendix H Trip Reduction Impact Analysis Documentation Memo

This page intentionally left blank.

Executive Summary

This document is an Initial Study and an Initial Environmental Checklist (IS/IEC) analyzing the potential environmental effects of the Tahoe Regional Planning Agency (TRPA) proposed 2020 Linking Tahoe: Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS). An IS is a preliminary environmental analysis used by the lead agency to determine whether an Environmental Impact Report (EIR), a Mitigated Negative Declaration (MND), or a Negative Declaration is required for a project under California Environmental Quality Act (CEQA) Guidelines. An IEC is a preliminary environmental analysis used to determine whether an Environmental Impact Statement (EIS), a Mitigated Finding of No Significant Effect, or a Finding of Significant Effect (FONSE) is required for a project under TRPA guidelines. This IS/IEC contains an introduction, project description, identification of environmental effects by checklist, explanation of environmental effects, and discussion of mitigation for significant environmental effects.

This document includes an IS-MND, prepared pursuant to CEQA. California Public Resources Code (PRC), Section 21000 et seq. The CEQA lead agency for this project is TRPA as the California Metropolitan Planning Organization for the region. This document also includes an IEC/FONSE determination pursuant to the requirements of Article VI of the TRPA Rules of Procedures and Chapter 3 of the TRPA Code of Ordinances. TRPA serves as the lead agency pursuant to its own regulations.

Project Synopsis

Project Description

The 2020 RTP/SCS is the transportation element of the Lake Tahoe Regional Plan. Every four years, TRPA prepares a regional transportation plan that outlines the overall vision for developing, operating, and maintaining the Lake Tahoe Region transportation system. This 2020 RTP/SCS builds from the 2017 RTP/SCS to offer creative strategies that offset transportation impacts, including micro-mobility strategies such as e-bikes and e-scooters and new or enhanced inter-regional transit service.

Goals and Policies

The 2020 RTP/SCS goals carry over from the 2017 RTP/SCS and are organized around addressing the local community and Tahoe visitor's transportation needs while they meet State and federal planning and reporting requirements. For the 2020 RTP/SCS update, 15 new policies were added and existing policies reframed for clarity. A full description of the policy changes in the form of a crosswalk comparison can be found in Appendix A of this document. The 2020 RTP/SCS Goals are as follows:

1. **Environment:** Protect and enhance the environment, promote energy conservation, and reduce greenhouse gas (GHG) emissions.
2. **Connectivity:** Enhance and sustain the connectivity and accessibility of the Tahoe transportation system, across and between modes, communities, and neighboring regions, for people and goods.
3. **Safety:** Increase safety and security for all users of Tahoe's transportation system.

4. **Operations and Congestion Management:** Provide an efficient transportation network through coordinated operations, system management, technology, and monitoring.
5. **Economic Vitality and Quality of Life:** Support the economic vitality of the Tahoe Region to enable a diverse workforce, sustainable environment, and quality experience for both residents and visitors.
6. **System Preservation:** Provide for the preservation of the existing transportation system through maintenance activities that support climate resiliency, water quality, and safety.

Policies have been updated in response to new plans implemented since the 2017 RTP/SCS update, to meet federal and State requirements, and for consistency with local planning efforts. Policies support active transportation and connections between recreational access areas; prioritize an integrated transit system, and collaboration with regional and interregional partners. They make efficient use of the existing network through technology, monitoring, increasing safety, and supporting the economic growth and vitality of the Plan Area.

New policies were included to reflect state requirements including California State Bill 375, the Americans with Disabilities Act (ADA), and Transit Priority Zones, as well as incentivizing new travel modes such as micro transit, on-demand mobility services, and the use of electric assisted devices. Senate Bill (SB) 375 set regional targets for reducing GHG emissions by using the regional transportation planning process.

The goals and policies concepts described above were presented to the public and stakeholders, and input from these groups was incorporated into the development of the 2020 RTP/SCS update.

Summary of Impacts and Mitigation Measures

This document examines the environmental consequences of the 2020 RTP/SCS, which updates the 2012 RTP/SCS and the 2017 RTP/SCS. The analysis contained in this IS/IEC relies largely on the analysis prepared in the 2012 RTP/SCS EIR/EIS and 2017 IS/IEC. As discussed throughout this document, many of the environmental issue areas (i.e., agricultural resources, mineral resources, and population and housing) would have less than significant impacts, similar to findings in the 2012 and 2017 environmental analyses. Other environmental issues areas (i.e., biological resources, cultural resources, hydrology and water quality, and geology and soils) would have potential impacts that would be reduced to less than significant with mitigation from the 2012 RTP/SCS EIR/EIS, as included in Appendix B. For those environmental issue areas where the regulatory environment has changed (i.e., air quality, GHG emissions, noise, and transportation), a detailed analysis concludes that mitigation contained in the 2012 RTP/SCS EIR/EIS would be sufficient to reduce impacts for all issue areas, to a less than significant level. Since adoption of the 2017 RTP/SCS IS/IEC in 2017, the *CEQA Guidelines* have been updated to include two new issues areas, Energy and Wildfire. This document includes a detailed analysis of both energy and wildfire impacts, though it should be noted that both those issues were addressed in some manner in the 2012 RTP/SCS EIR/EIS and the 2017 RTP/SCS IS/IEC. Impacts for these two environmental issue areas were determined to be less than significant and no additional mitigation would be required.

1 Introduction

This IS/IEC was prepared in accordance with the *CEQA Guidelines* and the TRPA Guidelines and serves as an IS-MND and IEC-FONSI for the 2020 RTP/SCS.

1.1 Project Background

For designated metropolitan areas to receive federal transportation project funding, federal law requires preparation of a long-range transportation plan, coordinated with air quality statutory requirements, that demonstrates conformity to air quality goals established by a state implementation plan. Federal requirements for the development of an RTP are implemented by the federally designated Metropolitan Planning Organization (MPO); in the Lake Tahoe Region, TRPA acts as the Tahoe Metropolitan Planning Organization (TMPO). California law also requires preparation of RTPs as part of the funding process for transportation projects. The RTP is an action-oriented document used to achieve a coordinated and balanced regional transportation system.

In addition to its role as part of the Lake Tahoe Regional Plan, the RTP addresses the federal and state transportation planning laws and regulations. The State of California designated TRPA as the Regional Transportation Planning Agency in 1984 for the California side of the Lake Tahoe Region. In 1999 the U.S. Congress designated TRPA as the MPO for the entire Lake Tahoe Region. At this point, TRPA assumed federal and state transportation planning responsibilities and authorities. The TMPO is responsible for approval of the RTP, which addresses transportation strategies for the entire region consistent with federal law. Therefore, while the RTP remains an element of the comprehensive Lake Tahoe Regional Plan, it has been produced and is periodically updated as a stand-alone plan, in keeping with its multiple purposes and authorities.

TRPA has the responsibility to update the Sustainable Communities Strategy (SCS) as part of the RTP update, pursuant to the requirements of California SB 375 as adopted in 2008. The SCS sets forth a forecasted development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, is intended to reduce GHG emissions from passenger vehicles and light trucks, to achieve the regional GHG reduction targets set by the California Air Resources Board (CARB).

2012 Mobility 2035 RTP/SCS (2012 RTP/SCS)

The TRPA Governing Board and TMPO Governing Board approved an update to the RTP/SCS on December 12, 2012 in conjunction with the 2012 Regional Plan Update. Mobility 2035 included a SCS in accordance with SB 375 (Sustainable Communities and Climate Protection Act). The SCS demonstrated how integrated transportation, land use, and housing strategies would help the Lake Tahoe region meet environmental thresholds and GHG targets for cars and light trucks on the California side of the Lake Tahoe Basin.

An EIR/EIS was prepared for the 2012 Mobility 2035 RTP/SCS for CEQA and NEPA compliance. The 2012 RTP/SCS consisted of a land use scenario, a transportation strategy package, and a constrained project list.

2017 Linking Tahoe 2040 RTP/SCS (2017 RTP/SCS)

The 2017 RTP/SCS updated the 2012 RTP/SCS by identifying the projects, policies, and programs planned for implementation in the Lake Tahoe region through 2040, as compared to those identified in the Mobility 2035 RTP, which has a planning horizon of 2035. The TRPA Governing Board approved the 2017 RTP/SCS and IS/IEC on April 26, 2017. The vision, goals, and policies in the 2017 RTP/SCS were based on the vision, goals, and policies developed for the 2012 RTP/SCS, while drawing from supportive plans such as the 2016 Active Transportation Plan, the 2014 Intelligent Transportation Systems Plan, the draft 2017 Long Range Transit Plan, and local jurisdiction area plans and draft corridor plans.

2020/2021 VMT Threshold Standard Update

The VMT Threshold standard, which was established through the Bi-State Compact in 1982, is being updated. The threshold's origin was rooted in concerns over water quality and the standard itself established a goal of reducing NOx emissions from cars and trucks in the region by 10% from 1981 levels. The goal of the standard was accomplished over 20 years ago, and emissions continue to decline. While the current standard no longer serves the purpose for which it was created, the region has other goals for which VMT can still be used as a measure. The region's current goals include, reducing mobile source GHG emissions, reducing dependency on the personal automobile, and creating more sustainable communities, all of which can be measured with VMT per capita.

The proposed VMT threshold standard of VMT Per Capita will shift away from the old-NOx based threshold standard and promote attainment of both California and Nevada GHG reduction goal and furthers the desired future development vision of the Regional Plan by concentrating mixed-use development in town centers and connecting those town centers and recreation sites with biking, walking, and transit options. The VMT Threshold standard update is anticipated to be completed spring of 2021.

2020 Linking Tahoe: Regional Transportation Plan/Sustainable Communities Strategy

The 2020 RTP/SCS provides an update to the 2017 RTP/SCS through limited changes to projects and programs for implementation in the Plan Area through 2045, as compared to a planning horizon of 2040 with the 2017 RTP/SCS. This update builds substantially from the 2017 RTP/SCS and includes updated strategies to reduce GHG emissions and vehicle miles traveled, including but not limited to, new transit services, new transportation demand management strategies, and new mobility technologies. This update also utilizes updated travel demand model inputs and outputs, including new socioeconomic, travel behavior, and other related data updates and associated model forecast outputs. TRPA has also focused on corridor planning, including State Route (Route) 28 and the Emerald Bay Corridor.

Following the adoption of the 2017 RTP/SCS, the Lake Tahoe Bi-State Working Group on Transportation convened public agency and private sector representatives from TRPA, California, and Nevada to address transportation planning challenges in the Plan Area. This bi-state group endorsed public-private pilot projects to evaluate new transportation technologies. It also evaluated funding options for transit, corridor planning, micro transit pilot projects, and created the 10-Year Action Plan. Additional accomplishments and progress since the 2017 RTP include an update to the Active Transportation Plan, the approval of a Tahoe Safety Strategy, an update of the Public Participation Plan, approval of Corridor Management Plans for US50 Community Revitalization and SR89 Emerald Bay.

1.2 Document Organization

This document examines the environmental effects of the 2020 RTP/SCS, which updates the 2017 RTP/SCS adopted in April 2017. This environmental analysis relies largely on the analysis prepared under the joint program EIR and EIS that evaluated the environmental effects associated with the adoption and implementation of the 2012 RTP/SCS and the IS/IEC prepared for the 2017 RTP/SCS.

This IS/IEC has been prepared to reflect minor updates to projects, and/or TRPA, state, or federal standards that have changed the regulatory framework from the 2017 RTP/SCS to the 2020 RTP/SCS. For impact topic areas, a simple checklist is provided that refers to the relevant 2012 RTP EIS/EIR sections and mitigation measures. A complete list of mitigation measures required for the 2012 RTP/SCS and 2017 RTP/SCS EIR/EIS is contained in Appendix B of this document.

Once a program CEQA document has been prepared, subsequent activities under the program must be evaluated to determine what, if any, additional CEQA documentation needs to be prepared. If the program CEQA document addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be in the EIR/EIS and IS/IEC scope and additional environmental documents may not be required (CEQA Guidelines Section 15168(c)). When a program CEQA document is relied upon for a subsequent activity, the Lead Agency must incorporate feasible mitigation measures developed in the CEQA document into the subsequent activities (CEQA Guidelines Section 15168(c)(3)). If a subsequent activity would have effects not addressed in the EIR/EIS or IS/IEC, the Lead Agency must prepare a new environmental document specific to the project. In this case, the IS/IEC still serves a valuable purpose as it tiers off the 2017 RTP/SCS IS/IEC and 2012 RTP/SCS EIR/EIS.

Although the 2020 IS/IEC relies on information and analysis from the 2012 and 2017 documents, the 2020 IS/IEC has been updated to reflect a current baseline and changes in TRPA, state, or federal standards that have changed the regulatory framework from the previous RTP/SCS. The 2020 IS/IEC analyzes whether the findings and mitigation from the 2017 analysis continue to be relevant given any new information, public input, environmental conditions, or plans for the region. Therefore, the 2020 IS/IEC incorporates all new information related to environmental impacts analyzed within the document, including new information related to climate change, visitation, travel, recreation, and public health and safety.

This page intentionally left blank.

2 Project Description

2.1 Project Title

2020 Linking Tahoe: Regional Transportation Plan & Sustainable Communities Strategy
(2020 RTP/SCS)

2.2 Contact Person and Phone Number

Rebecca Cremeen
Associate Planner
Long Range & Transportation Planning
(775) 589-5214

2.3 Lead Agency Name and Address

Tahoe Regional Planning Agency
128 Market Street
Stateline, Nevada 89449

2.4 Project Location

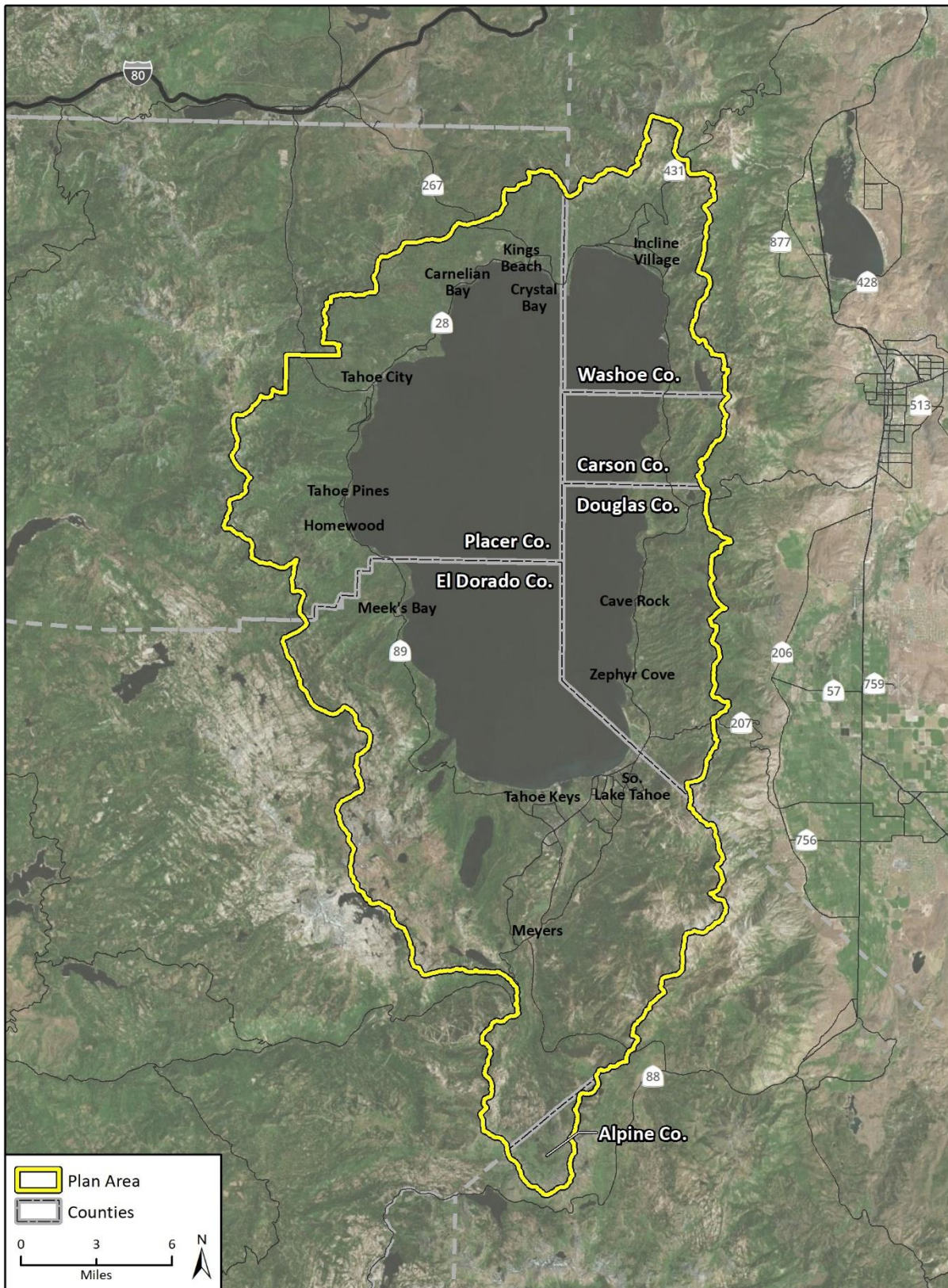
The Plan Area is in the Lake Tahoe Metropolitan Planning Area Boundary and includes areas of El Dorado and Placer counties, and South Lake Tahoe in California, and Washoe and Douglas counties and Carson City in Nevada. The Plan Area consists of approximately 325,000 acres, of which approximately 123,000 acres are the surface of Lake Tahoe. Figure 1 shows the Plan Area. Lake Tahoe's exceptional clarity is the focus of local environmental regulations.

The Lake Tahoe Region has a robust transportation system that includes local and regional highway networks; public and private fixed route transit, shuttles; demand response services; general aviation transportation via the South Lake Tahoe Airport; and commercial airlines service from Reno Tahoe International Airport in Reno, Nevada. Roadway access to the region is made up of seven access points with a chain of state highway segments surrounding the lake. On the north shore, from Placer County to Washoe Tahoe Area Regional Transit (TART) provides public transit, operated by Placer County. The Tahoe Transportation District (TTD) provides transit service on the south shore between South Lake Tahoe, Douglas County and Carson City, which includes fixed route and demand response transit. TTD also provides service in Washoe County between Incline Village and Sand Harbor in the summer months. Airport shuttle operations include the North Lake Tahoe Express and the South Tahoe Express, providing shuttle services to the Reno-Tahoe International Airport.

Portions of the region are serviced by bicycle facilities, including several long segments of separated, Class I, shared use trails. Class II and III bicycle facilities can be found in the condensed development areas of South Lake Tahoe, Incline Village, Tahoe Vista, and Tahoe City.

Private waterborne excursion and charter services provide cruising opportunities on the lake. Seasonal trolleys, ski and rafting shuttle services, special event shuttle services, and other services can be found throughout the region, funded by a combination of public and private funds.

Figure 1 Plan Area



2.5 Project Objectives

The Tahoe Regional Planning Agency operates as the federally designated MPO for the Lake Tahoe Basin and the Tahoe Metropolitan Planning Organization (TMPO). As such, State law requires the TRPA to prepare a long-range (at least 20-year) transportation planning document, known as an RTP, which is an action-oriented document used to achieve a coordinated and balanced regional transportation system. This section summarizes the RTP's objectives and responsibilities, as informed by relevant legislation.

TRPA also has the responsibility to update its SCS as part of the RTP update, pursuant to the requirements of California SB 375 as adopted in 2008. The California Transportation Commission's (CTC) document *2010 California Regional Transportation Plan Guidelines* serves as the guidance for RTP development. Under both federal and State law, TRPA must update its RTP every four years.¹

Sustainable Communities & Climate Protection Act Requirements (SB 375) Requirements

The Sustainable Communities Strategy and Climate Protection Act, SB 375, is codified in California Government Code, Sections 14522.1, 14522.2, 65080.01, 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588; PRC Sections 2161.3, 21155, 21159.28. It is a California law passed in 2008 that requires each MPO to demonstrate, through the development of an SCS, how its region will integrate transportation, housing, and land use planning to meet the GHG reduction targets set by the State. It also creates requirements for the CTC and CARB. Some of these include the following:

- The CTC must maintain guidelines for the travel demand models that MPOs develop for use in the preparation of their RTPs.
- CARB must develop regional GHG emission reduction targets for automobiles and light trucks for 2020 and 2035 by September 30, 2010 (completed).
- Each MPO must prepare an SCS as part of its RTP to demonstrate how it will meet the regional GHG targets.
- Each MPO must adopt a public participation plan for development of the SCS that includes informational meetings, workshops, public hearings, consultation, and other outreach efforts (completed) (TRPA 2019a).
- If an SCS cannot achieve the regional GHG target, the MPO must prepare an Alternative Planning Strategy showing how it would achieve the targets with alternative development patterns, infrastructure, or transportation measures and policies.
- Each MPO must prepare and circulate a draft SCS at least 55 days before it adopts a final RTP.
- After adoption, each MPO must submit its SCS to the CARB for review.
- CARB must review each SCS to determine whether, if implemented, it would meet the GHG targets. CARB must complete its review within 60 days.

In 2010, CARB set GHG reduction targets for the TMPO region passenger vehicles at a seven percent decrease from 2005 emissions levels by 2020 and a five percent decrease from 2005 emissions levels by 2035. The reduction targets were re-evaluated and approved by CARB in 2018. These

¹ 23 Code of Federal Regulations, Section 450.322(c); California Government Code Section 65080(d).

targets apply to the TMPO region for all passenger vehicles emissions, and not to individual cities or sub-regions.

SB 375 specifically states that local governments retain their autonomy to plan local General Plan policies and land uses. The 2020 RTP/SCS provides a regional policy foundation that local governments may build upon, if they so choose. The 2020 RTP/SCS includes and accommodates the quantitative growth projections for the region. SB 375 also requires that the RTP's forecasted development pattern for the region be consistent with the eight-year regional housing needs as allocated to member jurisdictions through the Regional Housing Needs Allocation process under State housing law.

This IS/IEC lays the groundwork for the streamlined review of qualifying development projects. Qualifying projects that meet statutory criteria and are consistent with the 2020 RTP/SCS are eligible for streamlined environmental review pursuant to CEQA under SB 375 and other laws.

Fixing America's Surface Transportation Act (FAST Act)

The most recent federal transportation legislation, Fixing America's Surface Transportation (FAST) Act was enacted in 2015 and builds on the changes made by the Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012. The MAP-21 legislation made several reforms to the metropolitan and statewide transportation planning processes, including incorporating performance goals, measures, and targets into the process of identifying needed transportation improvements and project selection. The FAST Act includes provisions to support and enhance these reforms. Public involvement remains a hallmark of the planning process.

The FAST Act continues requirements for a long-range plan and a short-term transportation improvement program, with the long-range statewide and metropolitan plans now required to include facilities that support intercity transportation, including intercity buses. The statewide and metropolitan long-range plans must describe the performance measures and targets that states and MPOs use to assess system performance and progress in achieving the performance targets. Additionally, the FAST Act requires the planning process to consider projects/strategies to improve the resilience and reliability of the transportation system, address stormwater mitigation, and enhance travel and tourism.

Finally, in an effort to engage all sectors and users of the transportation network, the FAST Act requires that the planning process include public ports and private transportation providers, and further encourages MPOs to consult during this process with officials of other types of planning activities, including tourism and natural disaster risk reduction. MAP-21 and the FAST Act also change criteria for MPO officials to provide transit provider representatives with equal authority and allow the representative to also serve as the representative of a local municipality.

Through the RTP development process, the FAST Act encourages TRPA to:

- Consult with officials responsible for other types of planning activities that are affected by transportation in the area (including State and local planned growth, economic development, environmental protection, airport operations, and freight movements) or to coordinate its planning process, to the maximum extent practicable, with such planning activities²

² 23 United States Code, Section 134(g)(3)(A).

Specifically, the FAST Act requires that the RTP planning process provide for consideration of projects and strategies that will:

- a) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- b) Increase the safety of the transportation system for motorized and non-motorized users
- c) Increase the security of the transportation system for motorized and non-motorized users
- d) Increase the accessibility and mobility of people and for freight
- e) Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
- f) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- g) Promote efficient system management and operation
- h) Emphasize the preservation of the existing transportation system
- i) Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation
- j) Enhance travel and tourism³

Planning Final Rule – FAST Act

On May 27, 2016, the Statewide and Nonmetropolitan Transportation Planning and Metropolitan Transportation Planning Final Rule was issued, with an effective date of June 27, 2016, for Title 23 Code of Federal Regulations (CFR) Parts 450 and 771 and Title 49 CFR Part 613. This final rule states, “On or after May 27, 2018, an RTPA may not adopt an RTP that has not been developed according to the provisions of MAP-21/FAST Act as specified in the Planning Final Rule.” This rule applies to the 2020 RTP/SCS as its adoption date, if adopted, would occur after May 2018.

Environmental Justice

TRPA is required to address social equity and environmental justice in the RTP. The legal basis for environmental justice stems from the Civil Rights Act of 1964, along with Executive Order 12898 (February 1994), which states that “each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” TRPA must evaluate how the 2020 RTP/SCS might impact minority and low-income populations and must ensure the 2020 RTP/SCS does not have a disproportionately adverse impact on such populations (see 2020 RTP/SCS-Appendix F).

Per 23 CFR Section 450.316(a)(1)(vii), the participation plan that TRPA must develop and use must describe explicit procedures, strategies, and desired outcomes for “seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services.”

³ 23 United States Code, Section 134(h)(1).

Regional Transportation Plans

As noted, the procedures for developing RTPs are provided in the CTC's Regional Transportation Plan Guidelines (CTC 2017). The guidelines identify the purpose of an RTP to be as follows:

- Providing an assessment of the current modes of transportation and the potential of new travel options within the region
- Projecting/estimating the future needs for travel and goods movement
- Identification and documentation of specific actions necessary to address regional mobility and accessibility needs
- Identification of guidance and documentation of public policy decisions by local, regional, state, and federal officials regarding transportation expenditures and financing and future growth patterns
- Identification of needed transportation improvements, in sufficient detail, to serve as a foundation for the: (a) Development of the Federal Transportation Improvement Program, and the State Transportation Improvement Program, (b) Facilitation of the National Environmental Policy Act (NEPA)/404 integration process, and (c) Identification of project purpose and need
- Employing performance measures that demonstrate the effectiveness of the system of transportation improvement projects in meeting the intended goals
- Promotion of consistency between the CTP, the regional transportation plan and other plans developed by cities, counties, districts, California Tribal Governments, and state and federal agencies in responding to statewide and interregional transportation issues and needs
- Providing a forum for: (1) participation and cooperation and (2) facilitation of partnerships that reconcile transportation issues which transcend regional boundaries
- Involving community-based organizations as part of the public, federal, state, and local agencies, California Tribal Governments, and local elected officials early in the transportation planning process so as to include them in discussions and decisions on the social, economic, air quality and environmental issues related to transportation.

RTPs must include long-term horizons (at least 20 years) that reflect regional needs, identify regional transportation issues/problems, and develop and evaluate solutions that incorporate all modes of travel. RTPs must also recommend a comprehensive approach that provides direction for programming decisions to meet the identified regional transportation needs. RTPs must also be fully consistent with the requirements of the FAST Act and other federal regulations, including conformity with the 1990 Clean Air Act Amendments and consistency with the Federal Transportation Improvement Program.

California Government Code sections 65050, 65400, 65584.01-04, 65587, 65588, and PRC Section 21155 were amended in January 2009 when SB 375 became law, requiring coordinated planning between regional land use and transportation plans to increase efficiency and reduce GHG emissions.

Project Goals and Strategies

The purpose of the 2020 RTP/SCS is to provide a clear vision of the regional transportation goals, strategies, and policies in the Tahoe region. The RTP provides short-term and long-term transportation strategies for implementation, which includes realistic and fiscally constrained alternatives. The purpose of the SCS is to demonstrate the integration of land use, housing, and

transportation for the purpose of reducing GHG emissions from passenger vehicles. Goals and strategies are outlined in the Executive Summary and Introduction of the 2020 RTP/SCS.

2.6 Project Characteristics

As described above, the 2020 RTP/SCS is an update to the current 2017 RTP/SCS adopted in April 2017. The 2020 RTP/SCS reflects minor changes that occurred since adoption of the 2017 RTP/SCS. The 2020 update to the 2017 RTP/SCS focuses on continued implementation of the 2017 RTP/SCS, with minor updates to policies, programs, and projects to ensure consistency with federal, State, and local planning requirements.

Policy Updates

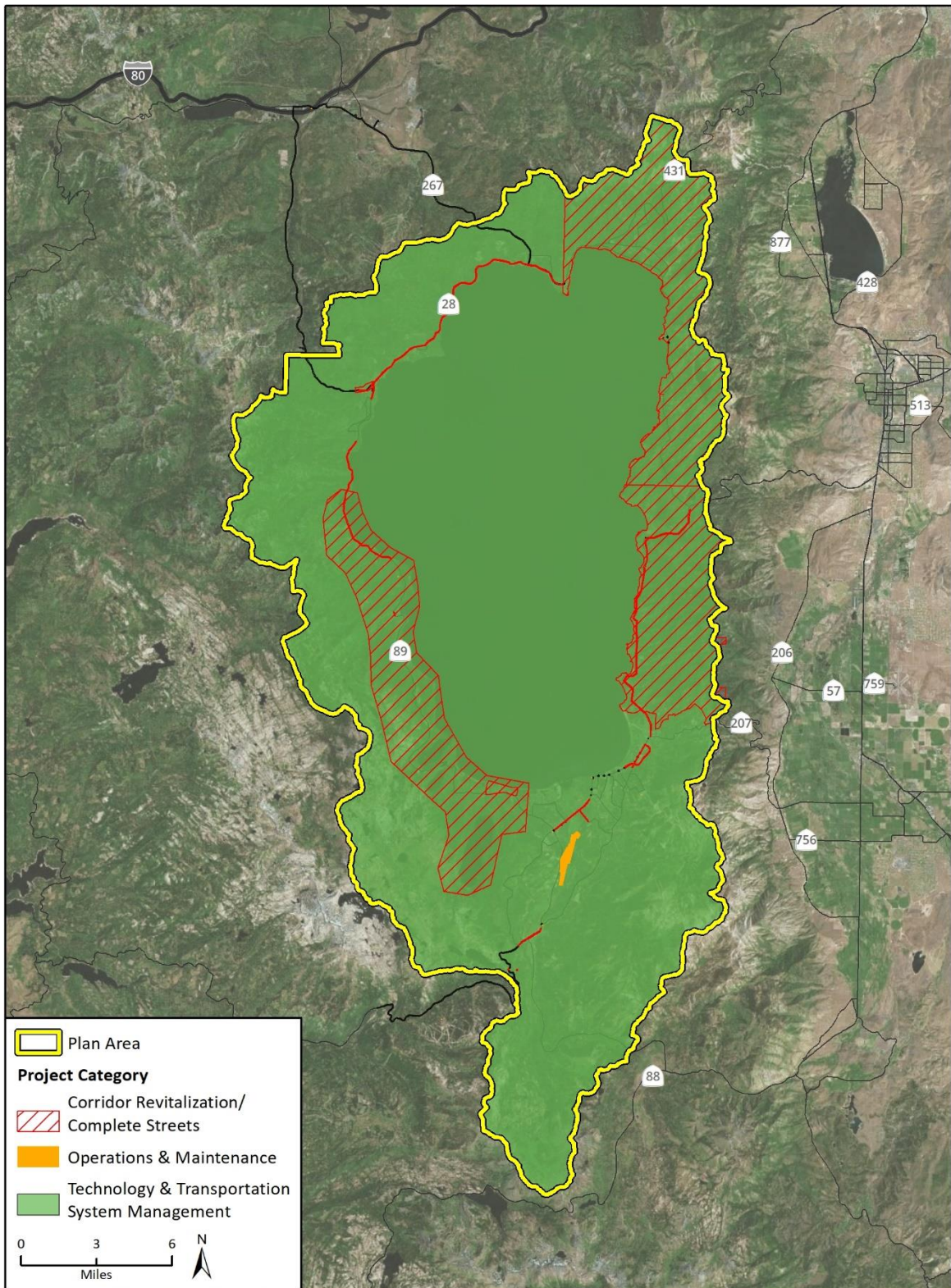
As described above, the 2020 RTP/SCS shows how TRPA will meet the transportation needs of the region for the period from 2020 to 2045, considering existing and projected future land use patterns as well as forecasted population and job growth. Regional goals and policies establish the organizing framework for transportation planning at Lake Tahoe. They represent stakeholder feedback and public input, as well as input from previous plans, such as the 2018 Active Transportation Plan, 2018 Safety Strategy, the 2016 Tahoe-Truckee Plug-In Electric Vehicle Readiness Plan and the SR89 Emerald Bay Corridor Management Plan. Of the 69 policies in the 2020 RTP/SCS, 24 are the same as in the 2017 RTP/SCS, 30 have been restated for clarity and other factors, two have been deleted, and 14 new policies were added compared to the 2017 RTP/SCS. Of the new policies, all were added to augment existing policies. A full list of the policies for the 2020 RTP/SCS can be seen in Appendix A of this document. The 2020 RTP/SCS plans for and programs approximately \$2.06 billion in revenues expected to be available from all transportation funding sources over the course of the planning period. It identifies and prioritizes expenditures of anticipated funding for transportation projects that involve all transportation modes: highways, streets and roads, transit, rail, bicycle, and pedestrian, aviation, and transportation demand management and transportation system management.

Project Updates

The 2020 RTP/SCS transportation improvements project list is an update the 2017 RTP/SCS project list. As such it removes projects completed since 2017, modifies some projects that remain on the list, and adds approximately 45 new minor projects to the list.⁴ This IEC/IS only analyzes those projects with available funding, referred to as “financially constrained”. Table 1 shows the new financially constrained projects, added to the 2020 RTP/SCS. Location of the new projects is shown on Figure 2, Figure 3, and Figure 4. The RTP/SCS includes active transportation, corridors, operations and maintenance, and transit technology projects. Corridor projects are projects that would revitalize transportation corridors in the Plan Area and improve water quality. Technology projects are complements to infrastructure projects, stand-alone investments, or support future projects through data collection and monitoring. A list of transportation improvement projects included in the proposed 2020 RTP/SCS is shown in Appendix C of this document.

⁴ Net new count does not include unconstrained projects in the 2020 RTP/SCS.

Figure 2 New 2020 RTP/SCS Financially Constrained Corridor, Operations, and Technology Projects



Imagery provided by Microsoft Bing and its licensors © 2020.
Lake Tahoe Basin Management Unit, 2017.

Fig 2 Project Location 20200706

Figure 3 2020 RTP/SCS Financially Constrained Active Transportation, Microtransit, and Transit Projects

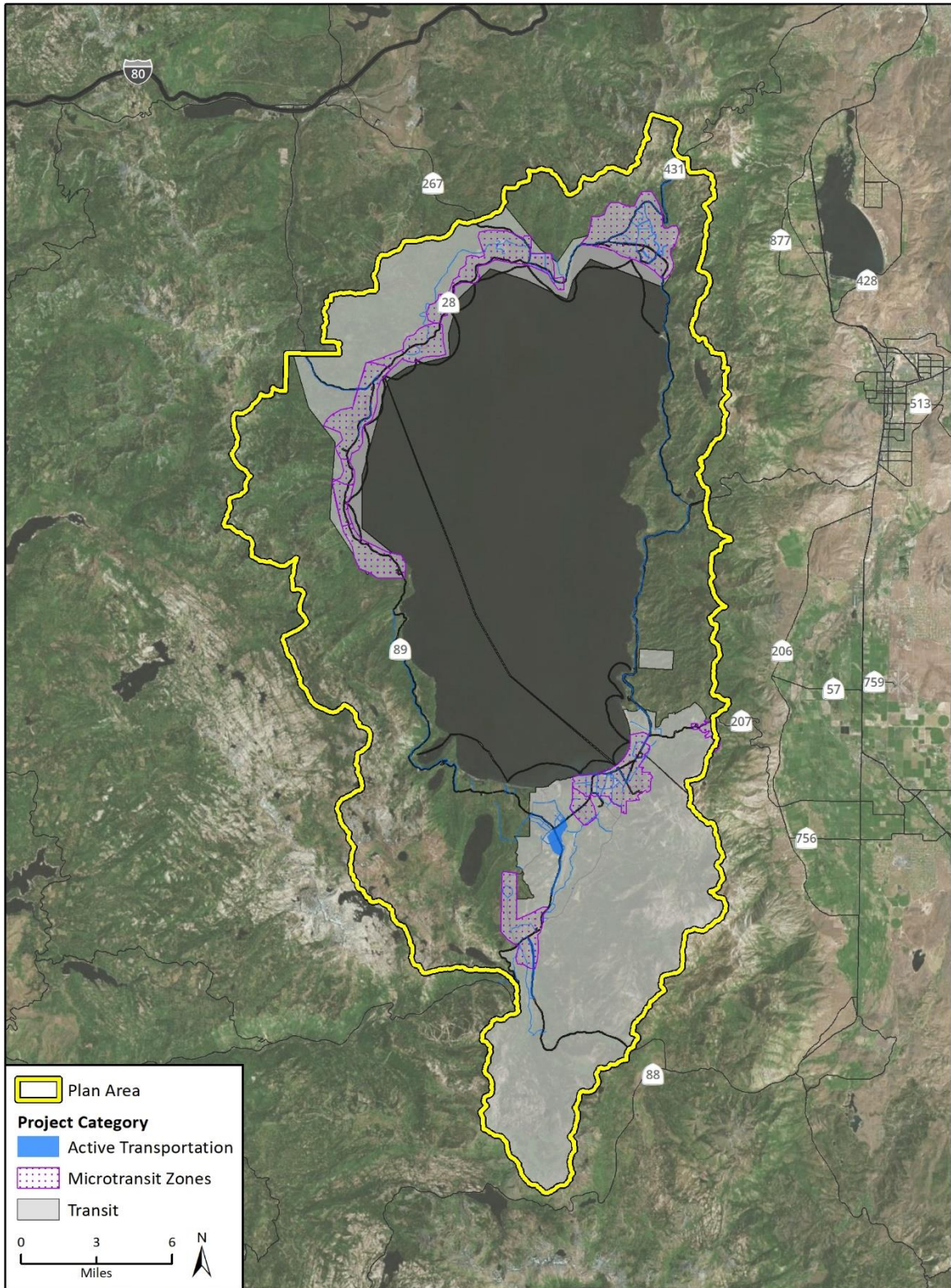
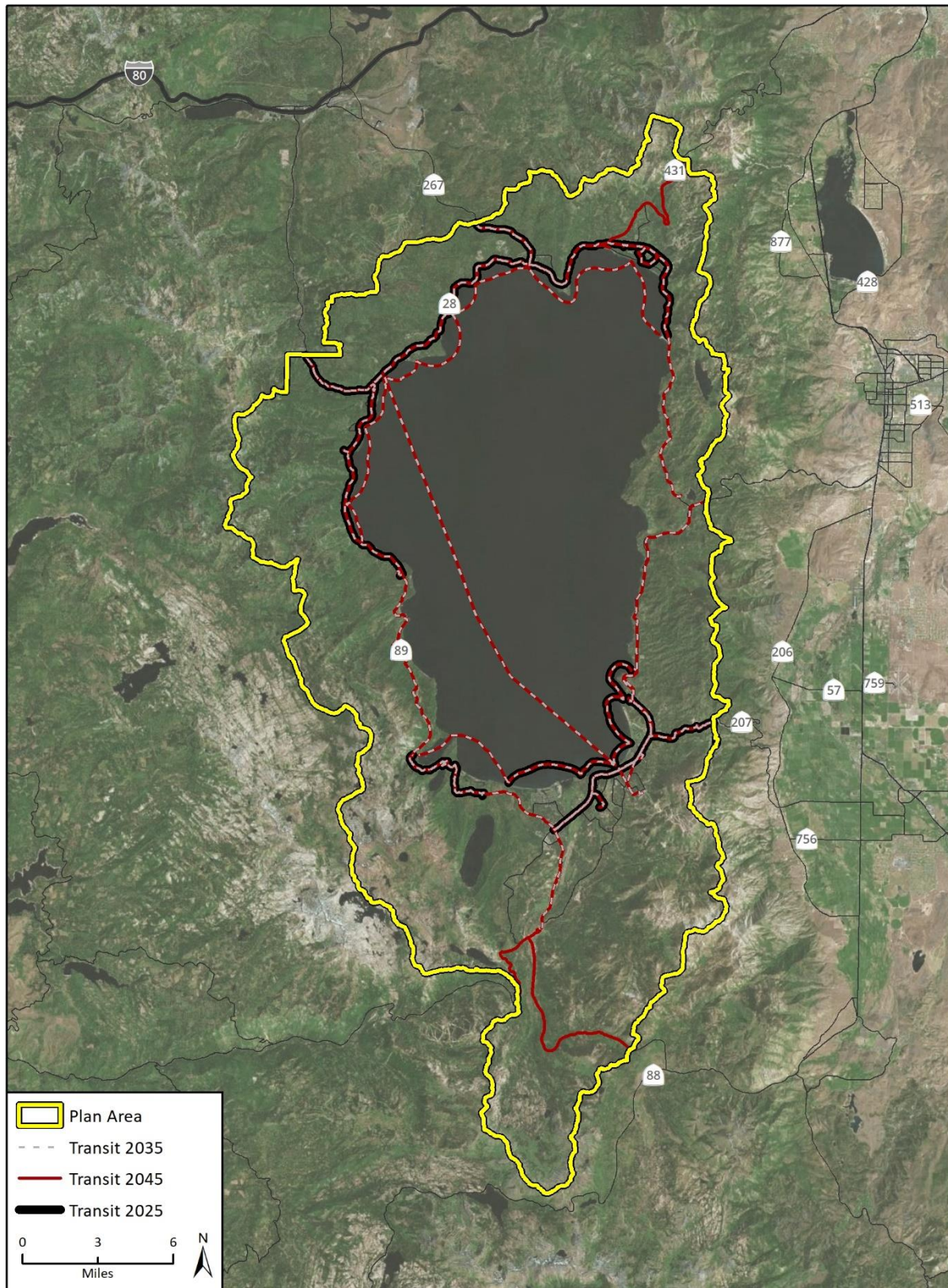


Figure 4 2020 RTP/SCS Financially Constrained Transit Projects



Imagery provided by Microsoft Bing and its licensors © 2020.
Lake Tahoe Basin Management Unit, 2017.

Fig. 4 Project Location Page

The land use scenario envisioned by the 2020 RTP/SCS is similar to that contained in the 2017 RTP/SCS. The regional forecast includes minor changes in development, population demographics, and visitation. This land use scenario, consistent with the 2017 RTP/SCS, concentrates the forecasted growth in population and employment in already urbanized areas. New development is anticipated to increase through the forecast years 2035 and 2045, in keeping with State-mandated housing (Appendix D). These increases would accommodate slight increases to full-time residential population and a more robust increase in day and overnight visitors to the Plan Area, which will result in continued and increased use of overnight lodging.

Residential growth forecasts in the region for full-time residents are anticipated to increase slightly as compared to the downward trend in the 2017 RTP/SCS because the number of regional housing units would increase with residential allocations and affordable housing programs. In addition, the residential occupancy rate is anticipated to increase as housing supply increases. Visitation is similarly anticipated to increase in the Plan Area as a result of population growth in the Bay Area, Sacramento, and Reno and increasing popularity of outdoor recreational experiences. An increase in residential housing and visitation is anticipated result in a small increase in employment in the Plan Area through 2045 (Appendix D).

Table 1 New Financially Constrained 2020 RTP/SCS Projects

Implementing Agency	Title	Project Description	Project Number	Project Type
City of South Lake Tahoe (CSLT)	Trail and Intersection Improvements – Recreation and Swim Center	Additional trail connections and addition of a fourth leg at Tallac and Highway 50	03.01.02.0101	Active Transportation
Placer County	Tahoe City Lakeside Trail Missing Link		03.02.02.0089	Active Transportation
El Dorado County	Class I Bike Path: East San Bernardino - West San Bernardino	Construct approximately 0.37 miles of Class I bike path between West San Bernardino Avenue and East San Bernardino Avenue. The pathway would cross the Upper Truckee River and include access to Washoe Meadows State Park, Tahoe Paradise Park, and the Lake Tahoe Environmental Science Magnet School in the community of Meyers. The project proposes to link the bike lane facilities along North Upper Truckee Rd and Apache Ave via a Class III (bike route) through signage and pavement markings.	03.02.02.0027	Active Transportation (Trails)
United Station Forest Service (USFS)	Pope Beach Bike Path	Provide non-motorized path to beach amenities.	03.02.02.0030	Active Transportation (Trails)
TTD	Nevada Stateline to Stateline Bikeway - Crystal Bay to Incline	Construct a portion of the Nevada Stateline to Stateline Bikeway from Crystal Bay to Incline Village.	03.02.02.0062	Active Transportation (Trails)

Implementing Agency	Title	Project Description	Project Number	Project Type
CSLT	Class I Bike Trail - Pine Blvd to end of Linear Park Path (Mountain to Beach Loop Park Ave West)	Construct a Class I trail from the end of the Linear Park Path to Pine Boulevard west of Park Avenue in the CSLT.	03.02.02.0064	Active Transportation (Trails)
El Dorado County	Class I Bike Trail Along Highway 50 from City Limits to Sawmill Road	Construct a Class I bike trail along Highway 50 from the limits of the CSLT to Sawmill Road.	03.02.02.0065	Active Transportation (Trails)
Douglas County	Highway 50 Sidewalk Construction - Kingsbury Grade to Lake Parkway	Sidewalk on southside of US Highway 50 connecting event center to Kingsbury	03.02.02.0058	Active Transportation (Trails)
Placer County	Brockway Vista Multi-Use Trail	Brockway Vista Multi-Use Trail	03.02.02.0073	Active Transportation (Trails)
CTC	Alta Mira Public Access Improvements	Lakeside Bike Trail Phase 2C - Mackinaw to Commons Beach	03.01.01.0005	Active Transportation (Trails)
El Dorado County	South Tahoe Greenway Shared Use Trail Phases 1b & 2	The project would construct 0.95 miles of AASHTO-compliant trail between Glenwood Way and Sierra Boulevard, including 0.77 miles of 10-foot-wide asphalt trail and 0.18 miles of elevated boardwalk/bridge. A new bike bridge over Trout Creek, improved local street crossings, and interpretive/wayfinding signage are also part of the project.	03.02.02.0075	Active Transportation (Trails)
TTD	Nevada Stateline to Stateline Corridor Improvements - Glenbrook Entrance to Round Hill Pines Beach	This project would include segments D, E, and F, identified in the Nevada Stateline-to-Stateline Bikeway Project Feasibility Study Report, completed in June 2011. Segment D: Glenbrook Entrance to Cave Rock Drive. Segment E: Cave Rock Drive to Zephyr Cove/ Segment F: Zephyr Cove to Round Hill Pines Beach Entrance.	03.02.01.0032	Active Transportation (Trails)
CSLT	Lake Tahoe Boulevard Class 1 Bicycle Trail (Viking Way to South Wye)	Design and construct Class I bike trail, ADA compliant ramps, and pathway lighting along the 0.6-mile section of Lake Tahoe Blvd. from the Intersection of Viking Way (D-Street) to the intersection of State Hwy 89 and US Highway 50 (South Wye).	03.02.02.0077	Active Transportation (Trails)
CSLT	Middle School SR2S Project - Rufus Allen Connector	This project proposes a Class I Bike and Ped trail along Rufus Allen Boulevard providing safe routes to school with access to the Al Tahoe Elementary School, Al Tahoe Middle School, St. Theresa School/Church, Boys and Girls Club, and the South Tahoe Middle School via a new trail connector across Lake Tahoe Unified School District property. Recreation facilities including the	03.02.02.0080	Active Transportation (Trails)

Implementing Agency	Title	Project Description	Project Number	Project Type
		Recreation Center, Ice Arena, Play Fields, Running Track, Soccer Fields and the CTC Greenway would be accessed as well. Improvements along Rufus Allen Blvd are proposed to address urban stormwater water quality and flooding. Project would begin at Highway 50 and Rufus Allen Blvd and connects to the AI Tahoe Blvd Class I project		
El Dorado County	Fallen Leaf Road Pavement Rehabilitation and Recreational Access Project	Fallen Leaf Road is 4.94 miles long and extends from SR 89 to the southern end of Fallen Leaf Lake at Stanford Sierra Camp. The proposed project would complete roadway improvements along a 2-mile segment of Fallen Leaf Road from SR 89 to Tahoe Mountain Road, including an extension of the bike path from the Fallen Leaf Lake Campground to Tahoe Mountain Road. The currently deteriorating pavement conditions are a deterrent for users of the Fallen Leaf Road to access Federal lands, who are often towing boats, bikes, camping gear or snowmobiles	03.02.01.0054	Active Transportation (Trails)
Tahoe Resource Conservation District (TRCD)	Kahle Drive Complete Street	This project proposes to transform Kahle Drive into a complete street by improving drainage, adding sidewalks, bike lanes, crosswalks, a safe intersection, and undergrounding overhead utilities. This 0.5 collector road provides key linkages to the existing Stateline to Stateline bike trail, trails throughout Rabe Meadow, and a Douglas County community center. The current condition of the road is highly degraded, unsafe, and a detriment to water quality and the adjacent public lands.	03.02.01.0055	Active Transportation
USFS	Camp Richardson Resort and Campground BMPs & Retrofit	Retrofit and/or provide water quality BMP-compliant day use parking for resort guests and employees. Reconfigure and retrofit road and day use parking, including implementation of water quality BMPs. Retrofit Village area to provide improved circulation efficiency and safety and implement water quality protection BMPs. Reconfigure campground entrance and primary circulation within the southern campground area.	01.01.01.0124	Active Transportation
CSLT	Class I Bike Trail: Third Street/Tahoe Valley Elementary	Tahoe Valley Elementary School to provide a safe route for students and link U.S. 50 corridor to the Tahoe Valley neighborhoods	03.02.02.0022	Active Transportation (Trails)

Implementing Agency	Title	Project Description	Project Number	Project Type
TTD	SR 28 Central Corridor Improvements – Sand Harbor to Spooner State Park	Central Corridor improvements include 8-mile segment of the NV Stateline to Stateline Bikeway connecting Sand Harbor to Spooner State Park proposed on the lake side of SR 28 providing off highway connections to US Forest Service recreation areas. The project includes co-location of Incline Village General Improve. District’s treated sewer effluent export line. Replacement will relocate the new line under bike path, and include options for other utilities (NV Energy / AT&T) to underground. To improve safety, parking lot expansions and improvements with transit stops are also planned throughout the corridor to relocate on highway parking. A permanent boat inspection station is also planned.	03.02.01.0017	Corridor
Placer County	Resort Triangle Transportation Plan	Placer Co is developing a Corridor Plan for the Resort Triangle, includes parking management, TDM, shuttles, improvements; within the basin SR89, SR267, SR28		Corridor
Nevada Department of Transportation (NDOT)	NDOT Complete Streets Project	The project improves traffic flow and promotes modal shift through safety and complete streets improvements including bike lanes, pedestrian crossing upgrades, adding left turn pockets, roadway realignment and pavement mill and fill, which includes grinding up the road and replacing it with an overlay.	03.02.01.0025	Corridor
NDOT	Highway 50 Safety Improvement and Complete Streets	The project improves traffic flow and promotes modal shift through safety and complete streets improvements including bike lanes, pedestrian crossing upgrades, adding left turn pockets, roadway realignment and pavement mill and fill, which includes grinding up the road and replacing it with an overlay.	01.01.01.0173	Corridor
Caltrans	Caltrans Tahoe City Maintenance Station (SHOPP)	On SR 89 near Tahoe City, at the Caltrans Tahoe City Maintenance Station. Demolish existing employee housing and construct new dormitory building.	4216	Corridor
Caltrans	Pavement Perseveration - SR28/SR89 Junction to Nevada State Line (SHOPP)	On SR 28 in Placer County from SR 28/SR 89 Junction to Nevada State line. Grind and replace existing pavement, rehabilitate or replace poor drainage systems, and upgrade non-ADA compliance ramps to current standards. EA 0J010	01.01.02.0019	Operations and Maintenance

Implementing Agency	Title	Project Description	Project Number	Project Type
CSLT	Bike and Pedestrian Facilities Operations and Maintenance – CSLT		03.02.04.0004	Operations and Maintenance
El Dorado County	Bike and Pedestrian Facilities Operations and Maintenance		03.02.04.0003	Operations and Maintenance
Tahoe City	Bike and Pedestrian Facilities Operations and Maintenance		03.02.04.0002	Operations and Maintenance
Caltrans	Highway 50 Echo Summit Bridge Rehabilitation	On Highway 50 at Echo Summit Sidehill Viaduct Bridge (#25-0044). Bridge replacement.	01.01.02.0005	Operations and Maintenance
Placer County	Streets and Roads Operations and Maintenance		01.01.02.0006	Operations and Maintenance
Douglas County	Streets and Roads Operations and Maintenance		01.01.02.0009	Operations and Maintenance
Placer County	Bike and Pedestrian Facilities Operations and Maintenance		03.02.04.0001	Operations and Maintenance
Douglas County	Bike and Pedestrian Facilities Operations and Maintenance	Supports project “TART Local Service Enhancements - Short Term” and “TART Additional and Expanded Service to Truckee - Short Term” to include replacement buses, expansion buses (estimated at 6), bus stop improvements, and Crystal Bay Transit Stop Enhancements.	03.02.04.0005	Operations and Maintenance
Washoe County	Bike and Pedestrian Facilities Operations and Maintenance	This project provides capital improvements to transit - long term.	03.02.04.0006	Operations and Maintenance
NDOT	Streets and Roads Operations and Maintenance - NDOT	This project represents the sweeping completed by the Nevada Department of Transportation.	3737	Operations and Maintenance
Washoe County	Streets and Roads Operations and Maintenance	This project represents the sweeping completed by the Nevada Department of Transportation.	01.01.02.0010	Operations and Maintenance

Implementing Agency	Title	Project Description	Project Number	Project Type
NDOT	Emergency Roadway Repair Program	Emergency road repair.	3752	Operations and Maintenance
Caltrans	Sierra Nevada Operation System	Smartphones have become the most accessible device for pre-trip planning. This project would develop smartphone applications to enhance traveler information dissemination. Envisioned applications include transit, parking, and traffic network data. Applications would be advertised on TTD's website. To realize the full benefit of this project, enhanced cellular coverage is required to provide better accessibility to the application's data. Through improved efficacy of the transportation system, congestion and air quality is expected to improve. This project is ITS Plan - RI-09. (SR89 Corridor)	3753	Technology
TTD	Tahoe Basin Transportation Smartphone Application Pilot	This project builds off Tahoe City Downtown Access improvements, located on the constrained project list. Strategies could include consideration of dedicated parking circulators during peak periods, new parking and mobility infrastructure, and wayfinding signage. Wayfinding signage for parking facilities should be incorporated into a comprehensive program for multiple modes.	04.02.02.0010	Technology
Placer County	Improved Parking Management and Wayfinding in Tahoe City	This project builds off Tahoe City Downtown Access improvements, located on the constrained project list. Strategies could include consideration of dedicated parking circulators during peak periods, new parking and mobility infrastructure, and wayfinding signage. Wayfinding signage for parking facilities should be incorporated into a comprehensive program for multiple modes.	03.01.02.0102	Technology
CSLT	Pioneer Trail Safety Improvement Project (signing, lighting, striping)	Install dynamic speed feedback signs on Pioneer Trail on approaches. At intersection, install edge-lines and center lines, intersection warning signs for minor streets, intersection lighting, upgrade pavement markings, and widen shoulder.	4165	Technology
TTD	TTD Maintenance & Administration Facility	This project includes capital expenditures for the transit system. Included in the project is preventive maintenance; fleet and facilities improvements; safety and security enhancements to both the fleet and facilities; and/or the purchase/lease of real property; and construction of facilities. The fleet component of this project includes, but is not limited to, the purchase of transit buses and other fleet vehicles and	03.02.01.0013	Transit

Implementing Agency	Title	Project Description	Project Number	Project Type
		related equipment either as replacements or expansions to the fleet. Fuel types may include battery electric, gasoline, diesel, or variants/combinations of those noted fuels.		
TRPA	Mobility Hub and Transit Center Capital	Mobility hub and transit center.	03.02.01.0043	Transit
TTD	TD Phase 2025 Transit Capital Enhancements and Fleet Replacement	This project would improve the existing US Forest Service Welcome Center or construct a new terminal facility in Meyers to serve as the terminus of the Route 54 service and the transfer point to future additional services to connect to out of basin destinations. Improvements to the LTCC transfer terminal in conjunction with the college to add enhanced waiting facilities and real-time arrival displays. This project would fund three additional battery electric buses needed to operate the service at the envisioned frequency plus two spares. This project will fund one additional gasoline small cutaway needed to operate the expanded demand response service.	03.02.01.0039	Transit
TTD	TTD Transit Capital Enhancements and Fleet Replacement	This project will be a public-private partnership with the existing South Shore water taxi company in the South Shore to provide companion service to the Crosslake Ferry service.	03.02.01.0050 03.02.03.0020 03.02.03.0025	Transit
Private	North Shore Water Taxi Project Phase 2035	This project will be a public-private partnership with the existing South Shore water taxi company in the South Shore to provide companion service to the Crosslake Ferry service.	New	Transit

Source: Full project list is included as Appendix C

Caltrans = California Department of Transportation; CTC = California Tahoe Conservancy; Highway 50 = U.S. Highway 50; NDOT = Nevada County Department of Transportation; SR = State Route; TRCD = Tahoe Resource Conservation District; TTD =Tahoe Transportation District, USFS = United States Forest Service

2020 RTP/SCS Organization

TRPA adopted the previous 2017 RTP/SCS in April of 2017. This [2020 RTP/SCS](#) reflects changes in legislative requirements, local land use policies, and resource constraints and is organized into seven sections:

- Executive Summary
- Introduction
- Planning Context
- The Plan
- Funding the Plan
- Measuring and Managing for Success

- Moving Forward

The vision of the 2020 RTP/SCS is to have a transportation system in the Plan Area that is, “interconnected, inter-regional, and sustainable, connecting people and places in ways that reduce reliance on the private automobile.” Regional goals and policies establish the framework of the 2020 RTP/SCS. Goals and policies represent stakeholder feedback, public input, and input from previous plans, such as TRPA’s 2018 Active Transportation Plan. The 2012 RTP/SCS and 2020 RTP/SCS share six transportation related goals, as shown in the Executive Summary of the 2020 RTP/SCS. The 2020 RTP/SCS incorporates two main strategies into all its proposed improvements to help the Plan Area achieve the envisioned transportation system: travel demand management and transportation system management. Transportation system management projects are organized into transit, trails, technology, and corridor categories.

2.7 Required Approvals

Approval of the RTP/SCS is at the discretion of the TRPA Governing Board, but additional environmental review will be conducted by the responsible lead agency prior to implementation of individual projects contained within the 2020 RTP/SCS. Lead agencies include, but are not limited to the following:

- California Department of Transportation (Caltrans)
- California Transportation Commission (CTC)
- North Tahoe Public Utility District (NTPUD)
- Tahoe City Public Utility District (TCPUD)
- Carson Area Metropolitan Planning Organization (CAMPO)
- Tahoe Truckee Area Regional Transit (TART)
- Tahoe Resource Conservation District (TRCD)
- Tahoe Transportation District (TTD)
- Cities of: South Lake Tahoe and Carson City
- Counties of: Placer, Washoe, Douglas, and El Dorado
- Nevada Tahoe Conservation District (NTCD)
- Nevada Department of Transportation (NDOT)

The relationship of this IS/IEC to future environmental review of individual transportation projects is further discussed in Section 1.0, *Introduction*.

2.8 Relationship with Other Plans and Programs

The 2020 RTP/SCS provides a sound basis for the allocation of state and federal transportation funds for transportation projects over the subsequent 20 years. The 2020 RTP/SCS follows guidelines established by the CTC and NDOT to:

- Describe the transportation issues and needs facing the region
- Identify goals and policies for how TRPA will meet those needs
- Identify the amount of money that will be available for identified projects

- Include a list of prioritized transportation projects to serve the region’s long-term needs, consistent with the funds allocated, while considering environmental impacts and planning for future land use

The 2020 RTP/SCS has been evaluated for consistency with the goals, policies and objectives currently being implemented by municipal and county planning agencies within the Tahoe Region. The 2020 RTP/SCS would be implemented with other existing TRPA, municipal, and county programs designed to improve transit access, bicycle and pedestrian facilities and reduce overall vehicle trips.

2.9 Tribal Consultation Pursuant to Public Resources Code Section 21080.3.1

The Washoe Tribe of Nevada and California is an important partner in transportation planning at Lake Tahoe. The Tribe and TRPA have acknowledged the mutual benefit of a formalized process for communication for land, transportation, and resource management decision making and other governmental relations. Both parties have a strong interest in the protection of social, biological, and Tribal cultural resources in the Lake Tahoe Region. For the 2020 RTP/SCS, TRPA engaged the Washoe tribe on the overall RTP strategy pursuant to Public Resources Code Section 21080.3.1. TRPA will continue to engage the Tribe as the U.S. Highway 50 East Shore Corridor Plan and State Route 89 Recreation Corridor Plan are developed. Additionally, the following tribes were contacted for the 2020 RTP/SCS: Auburn Rancheria, Bridgeport Paiute, Browns Valley, Shingle Springs, Colfax, Nashville Enterprise, and Walker River.

3 Initial Study/Initial Environmental Checklist

This section discusses the possible environmental effects of the proposed project for the specific issue areas that were identified as having the potential to experience significant impacts. As an IS-MND and IEC-FONSE, this report analyzes the same potentially significant impact areas as the 2017 RTP/SCS. A “significant effect” is defined by the *CEQA Guidelines* Section 15382 as:

a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment but may be considered in determining whether the physical change is significant.

The following issue areas were identified as having potentially significant impacts in the 2012 and 2017 RTP/SCS and are evaluated in more detail in this IS/IEC:

- | | |
|-----------------------------|-----------------------------------|
| 1. Aesthetics | 4. Noise |
| 2. Air Quality | 5. Recreation |
| 3. Greenhouse Gas Emissions | 6. Transportation and Circulation |

In addition to those listed above the following environmental issue areas are evaluated in the 2020 RTP/SCS IS/IEC: Agriculture and Forestry Resources, Biological Resources, Cultural Resources, Energy, Geology/Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire.

As an IEC-FONSE, this report analyzes the potential environmental impacts for areas required by the TRPA Environmental Checklist. TRPA topics are analyzed and discussed under related CEQA impact topics as shown in Table 2 below. Although projects proposed in the 2020 RTP/SCS are analyzed throughout this document each individual project would be required to comply with local jurisdiction standards and undergo individual environmental analysis under CEQA, TRPA, and potentially NEPA (if on federal lands) review. The level of documentation for environmental review for each individual project would vary based on site specific conditions.

Table 2 Impact Topics Organization

CEQA	TRPA
Aesthetics	Scenic Resources/Community Design, Light & Glare
Agriculture & Forestry Resources	Vegetation
Air Quality	Air Quality
Biological Resources	Natural Resources, Vegetation, Wildlife
Cultural Resources	Archaeological/Historical
Energy	Energy
Geology/Soils	Land
Greenhouse Gas Emissions	Greenhouse Gas Emissions ¹
Hazards & Hazardous Materials	Risk of Upset, Human Health
Hydrology/Water Quality	Water Quality
Land Use/Planning	Land Use
Mineral Resources	Vegetation
Noise	Noise
Population/Housing	Population, Housing
Recreation	Recreation
Transportation	Transportation/Circulation
Tribal Resources	Archaeological/Historical
Utilities/Service Systems	Utilities, Energy
Wildfire	Risk of Upset, Human Health

¹ While the TRPA checklist does not include specific GHG questions, TRPA does evaluate GHG emissions as they affect environmental thresholds.

The assessment of each issue area begins with a table identifying where the impact was analyzed (the 2017 RTP/SCS IS/IEC or 2012 RTP/SCS EIR/EIS), if proposed changes require major revisions to the 2017 IS/IEC, if any new circumstances would result in major revisions to the IS/IEC, whether new information requires further analysis or results in new or substantially more severe significant impacts, and if adopted mitigation will resolve impacts. The following section discusses the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection describes each impact of the proposed project starting with CEQA impact topics and followed by related TRPA impact topics, mitigation measures for significant impacts (if any), and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

CEQA

Significant and Unavoidable. An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per Section 15093 of the *CEQA Guidelines*.

Less than Significant with Mitigation Incorporated. An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under Section 15091 of the *CEQA Guidelines*.

Less than Significant. An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.

No Impact. The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

TRPA (Section 3.3.2)

TRPA Code Section 3.3.2 indicates that a response of “Data Insufficient” or a determination that a project may have a significant effect on the environment requires additional environmental analysis in the form of an Environmental Assessment or EIS. The Initial Environmental Checklist form requires that all “Yes” and “No, with Mitigation” response require a written explanation. TRPA identifies the following four levels of impacts:

Yes

No

No with Mitigation

Data Insufficient

A list of mitigation measures follows each environmental impact discussion (if required) and the residual effects or level of significance that remains after implementation of the measure(s) is discussed. Appendix B includes all mitigation measures from the 2012 RTP/SCS EIR/EIS and 2017 IS/IEC that apply to the proposed project.

This page intentionally left blank.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology/Soils | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input checked="" type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input checked="" type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input checked="" type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

CEQA Environmental Determination

Based on this initial evaluation:

- I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project **MAY** have a “potentially significant impact” or “less than significant with mitigation incorporated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

- I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

Title

TRPA Environmental Determination

Based on this evaluation:

- The proposed project could not have a significant effect on the environment and a finding of no significant effect shall be prepared in accordance with TRPA's Rules of Procedure
- The proposed project could have a significant effect on the environment, but due to the listed mitigation measures which have been added to the project, could have no significant effect on the environment and a mitigated finding of no significant effect shall be prepared in accordance with TRPA's Rules of Procedure
- The proposed project may have a significant effect on the environment and an environmental impact statement shall be prepared in accordance with this chapter and TRPA's Rules of Procedure.

Signature

Date

Printed Name

Title

4 Evaluation of Impacts

1 Aesthetics

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Have a substantial adverse effect on a scenic vista?	2012 RTP/SCS EIR/EIS Impact 3.9-2	No	No	No	Yes
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	2012 RTP/SCS EIR/EIS Impact 3.9-1 and Impact 3.9-2	No	No	No	Yes
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	2012 RTP/SCS EIR/EIS Impact 3.9-1	No	No	No	Yes
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	2012 RTP/SCS EIR/EIS Impact 3.9-3	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

TRPA Environmental Checklist: Section 18 – Scenic Resources/Community Design

Will the proposal:

a.	Be visible from any state or federal highway, Pioneer Trail or Lake Tahoe	2012 RTP/SCS EIR/EIS Impact 3.9-1, 3.9-2	No	No	No	Yes
b.	Be visible from any public recreation area or TRPA designated bicycle trail?	2012 RTP/SCS EIR/EIS Impact 3.9-1	No	No	No	Yes
c.	Block or modify an existing view of Lake Tahoe or other scenic vista seen from a public road or other public area?	2012 RTP/SCS EIR/EIS Impact 3.9-2	No	No	No	Yes
d.	Be inconsistent with the height and design standards required by the applicable ordinance or Community Plan?	2012 RTP/SCS EIR/EIS Impact 3.9-1	No	No	No	Yes
e.	Be inconsistent with the TRPA Scenic Quality Improvement Program (SQIP) or Design Review Guidelines?	2012 RTP/SCS EIR/EIS Impact 3.9-1 and 3.9-2	No	No	No	Yes

TRPA Environmental Checklist: Section 7 – Light and Glare

Will the proposal:

f.	Include new or modified sources of exterior lighting?	2012 RTP/SCS EIR/EIS Impact 3.9-3	No	No	No	Yes
g.	Create new illumination, which is more substantial than other lighting, if any, within the surrounding area?	2012 RTP/SCS EIR/EIS Impact 3.9-3	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
h. Cause light from exterior sources to be cast off-site or onto public lands?	2012 RTP/SCS EIR/EIS Impact 3.9-3	No	No	No	Yes
i. Create new sources of glare through the siting of the improvements or through the use of reflective materials?	2012 RTP/SCS EIR/EIS Impact 3.9-3	No	No	No	Yes

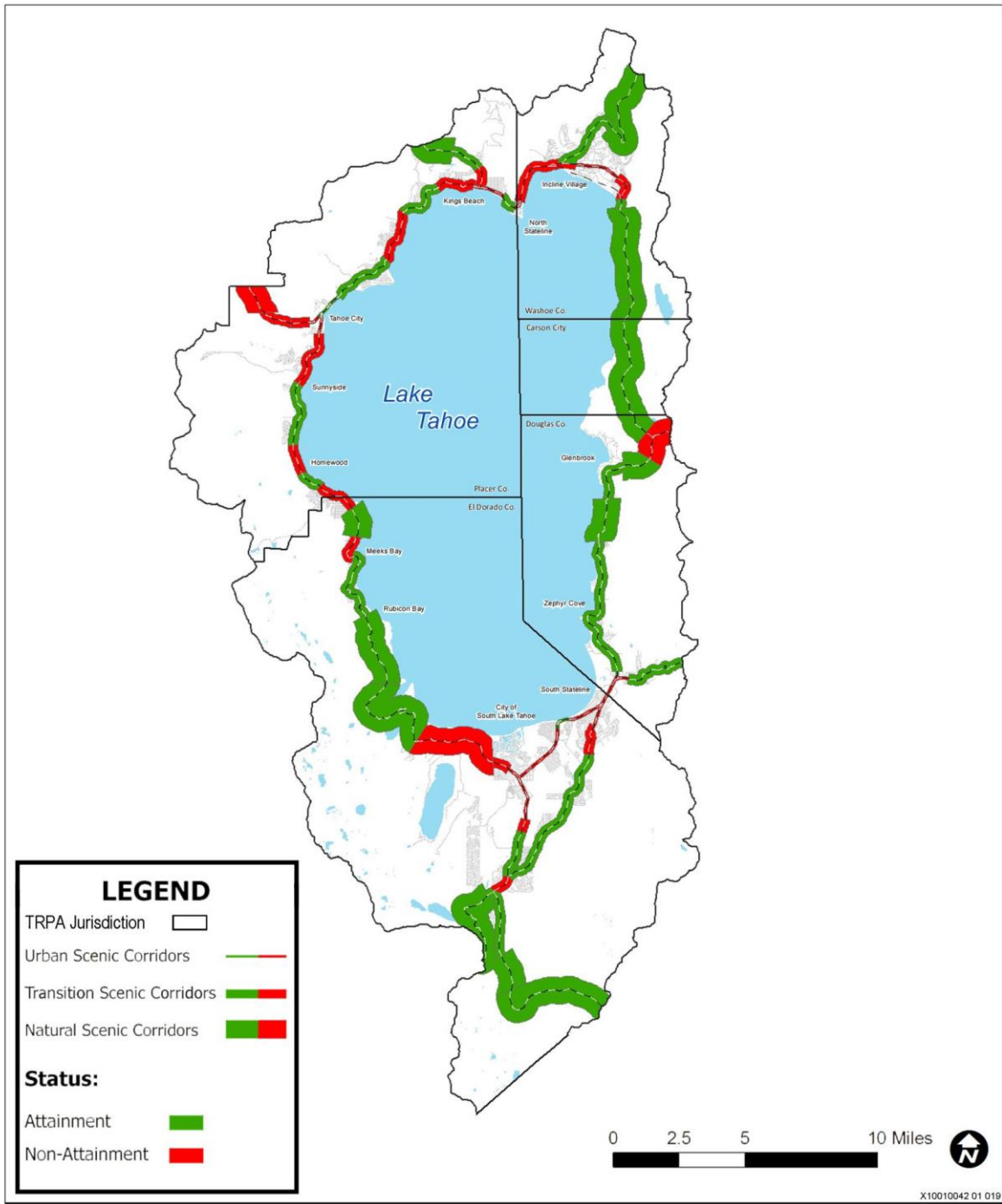
Discussion

This section presents the analyses for potential impacts to aesthetics and visual quality by considering changes to the environment and new projects since the 2017 RTP/SCS checklist. The 2015 Threshold Evaluation is the latest TRPA assessment of visual quality in the Lake Tahoe region (TRPA 2016a). It accounts for ongoing improvements in the region relative to nine threshold categories, including scenic resources where the goal is to maintain or improve the quality of view from public, outdoor recreation areas, mainly through the implementation and enforcement of design guidelines (TRPA 1989, TRPA 2020a). Through this program, in conjunction with regional, state, and federal collaboration on the Lake Tahoe Environmental Improvement Program, aesthetic conditions continue to improve, particularly as new development occurs (TRPA 2020b).

According to the 2015 Threshold Evaluation, an overall improvement in scenic ratings is observed at a regional scale for visual resources associated with bicycle and other recreation trails, as well as other projects associated with uses that may be visible from the lake or from roadways (TRPA 2016). These improvements in visual character are expected to continue to improve as new projects are built and replace development that pre-dates the enforcement of the design standards. Figure 5 shows urban and natural scenic corridors along with transition zones. Projects proposed in the 2020 RTP/SCS would be subject to these same design standards and review by TRPA’s Current Planning Division during the permitting process.

All projects included in this plan must comply with the Design Review Guidelines in Chapter 36 of the TRPA Code of Ordinances, which includes specific standards for site design, building design, landscaping, and lighting. Chapter 37 of the Code also establishes height standards to ensure visually compatible development. Chapter 66, Scenic Quality, contains specific standards for roadway travel units, scenic highway corridors, and scenic viewpoints. TRPA’s Scenic Quality Improvement Program (SQIP) contains recommendations for scenic improvements in specific locations based on the current scenic attainment score (TRPA 2019b). TRPA and implementing project partners would consult the SQIP when designing transportation projects that are in the areas identified for improvements. Typical scenic improvement recommendations include undergrounding utilities, vegetation screening, and use of natural building materials.

Figure 5 Scenic Corridors in the Plan Area



Projects would be subject to local jurisdiction scenic and design standards, as well as state and federal. These local jurisdictional planning documents were discussed in detail in the 2012 RTP/SCS EIR, but some have been updated since. Projects may also be located on U.S. Forest Service lands, California State Parks, or Nevada State Parks lands, some of which have specific design requirements for signage and other improvements associated with transportation projects. The applicable documents are as follows:

- Caltrans Guide to Visual and Aesthetics Review (2016)
- City of Carson City Master Plan Guiding Principle #3, Stewardship of the Natural Environment (City of Carson City 2006b)
- Douglas County Master Plan Land Use Element (Douglas County 2012), undergoing update with new maps ready December 2019 and revised element ready December 2020 (Booth 2020)
- Douglas County Design Criteria and Improvement Standards (Douglas County 2011)
- El Dorado County Design and Improvement Standards Manual (El Dorado County 1989)
- El Dorado County Targeted General Plan Amendment and Zoning Ordinance Update, Article 3 Site Planning and Project Design Standards (El Dorado County 2015)
- Nevada Department of Transportation Landscape and Aesthetics Corridor Plan (NDOT 2012)
- Placer County General Plan Land Use Development Form and Design (Placer County 2013)
- City of South Lake Tahoe General Plan Natural and Cultural Resources Element (CSLT 2011)
- City of South Lake Tahoe Design Guidelines (CSLT 2016)
- Washoe County Master Plan Conservation Element (Washoe County 2010)
- U.S. Department of Agriculture, Forest Service Division Visual Standards Guide (USDA 2013)

New, revised, and carry-over policies in the 2020 RTP/SCS that could relate to visual quality impacts are as follows:

- **Policy 2.14:** Construct, upgrade, and maintain pedestrian and bicycle facilities consistent with the Active Transportation Plan
- **Policy 2.18:** In roadway improvements, construct, upgrade, and maintain active transportation and transit facilities along major travel routes. In constrained locations, all design options should be considered, including but not limited to restriping, roadway realignment, signalization, and purchase of right of way
- **Policy 2.19:** Encourage partners to develop and implement plans coordinating wayfinding and signage to build awareness of alternative transportation opportunities including transit, pedestrian, and bicycle facilities.
- **Policy 3.5:** Design projects to maximize visibility at vehicular, bicycle, and pedestrian conflict points. Consider increased safety signage, site distance, and other design features, as appropriate.
- **Policy 4.8:** Prohibit the construction of roadways to freeway design standards in the Tahoe Region. Establish Tahoe specific traffic design volume for project development and analysis.
- **Policy 4.9:** Require the development of traffic management plans for major temporary seasonal activities, including streetscape flexibility within urban centers, and the coordination of simultaneously occurring events
- **Policy 4.14:** Design roadway corridors, including driveways, intersections, and scenic turnouts, to minimize impacts to regional traffic flow, transit, and bicycle and pedestrian facilities by using shared access points where feasible
- **Policy 6.1:** Preserve the condition of sidewalks and bicycle facilities and maintain, where feasible, for year-round use.
- **New Policy (System Preservation):** Improve winter transit access by providing shelters, cleared sidewalks and paths around stops, winter accessible bike racks, and warm shelters at mobility hubs and major transit stops.

- **Policy 6.2:** Maintain and preserve pavement condition to a level that supports the safety of the traveling public and protects water quality.

Projects proposed under the 2020 RTP/SCS are intended to implement these policies through adding new facilities, maintaining existing ones, and making those facilities more accessible through parking management and wayfinding signage, as discussed below.

Components of Projects with Potential for Impact

The 2020 RTP/SCS includes a range of projects, including active transportation, transit, corridor, operations and maintenance, and technology projects. Active transportation projects include trails and trail connectors that are paved or maintained dirt with various supporting components such as border fences, wayfinding signs, and interpretive panels at staging areas. Some projects could include restrooms, parking, and other supporting structures that have the potential to affect the scenic environment. Scenic mitigation would be required as described in the impact analysis below. Active transportation projects where scenic mitigation could be required include but are not limited to the Tahoe City Lakeside Trail Missing Link, and the Dollar Creek Shared-Use Trail; corridor and community projects, such as the Kings Beach Commercial Core Improvement Project; operations and maintenance projects, such as streets and roads repairs and snow plowing in Placer and Douglas counties; and variable speed signs that could be implemented as part of the technology projects.

Corridor and Community, Operations and Maintenance, and Transit projects would include street improvements, lighting, traffic flow and parking management, and seasonal street sweeping or snow plowing. Improved bus facilities are anticipated for the Crystal Bay Transit Stop, a mobility hub and transit center could be added, and existing facilities at the USFS Welcome Center could be replaced or enhanced, on Route 54. Transit projects could also include a water taxi with associated docks, signage, and supporting structures. Technology projects such as the Tahoe City Downtown Access improvements include signage to assist with safe driving, wayfinding, locating parking, and mobility infrastructure.

Where project components are at-grade, they would not interfere with access to scenic vistas, but implementation of street lighting, parking facilities, and transit facilities could introduce new buildings and structures with the potential to affect scenic vistas, depending on their placement and design. New projects of this type include the Kings Beach Commercial Core Improvement Project and the Resort Triangle Transportation Plan, both in Placer County, and the NDOT Complete Streets Project, throughout the Nevada counties. The Kings Beach project features landscaping, changes to the roadway design on Route 28, and implementation of parking management such as parking restrictions and metering, all of which were found to have no impact or less than significant impact to visual resources in the Final Environmental Assessment for the project (Placer County 2010). The Resort Triangle Transportation Plan anticipates implementing parking management and improving pedestrian, cycling, and public transit connectivity. It would also install wayfinding signs in and around the Resort Triangle area. The NDOT Complete Streets projects would redesign certain streets to accommodate safe non-motorized travel. The Complete Streets Policies document recommends adherence to industry-wide design standards (NDOT 2016).

The Regional Visual Environments section of the TRPA Design Guidelines gives general descriptions of the desired visual environment in urban, rural transition, and rural areas. Additionally, the Element details scale, style, landscaping, building materials and colors, lighting, and signage

preferences for each of these areas, commensurate with the level of human activity that normally occurs there (TRPA 1989).

The counties in the Plan Area have adopted general plans and design guidelines that offer policies and standards which support consistent development and preservation of the scenic environment. Additionally, USFS and Caltrans offer guidelines for visual assessment and preservation of visual quality on public lands and from public roadways (Caltrans 2016, USDA 2013). These standards for visual assessment govern the analysis in this report, along with TRPAs standards as discussed above.

CEQA Environmental Checklist

a. Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is a viewpoint often accessed from public roadways or active transportation facilities that offers sweeping views of the landscape. Transportation facilities can enhance views from such places when they increase access to public viewing locations or they can detract from these resources, if they introduce a large, industrial feature such as a bridge, where there was none.

The 2012 RTP/SCS EIR/EIS found that even though the RTP/SCS has an inherent objective to protect scenic quality, there is potential for significant impacts to occur during project implementation, requiring “considerable discretion...be applied to projects to determine how scenic impacts would be avoided, or if needed, what compensatory mitigation might be required. The 2017 RTP/SCS IS/IEC made similar findings for scenic quality.

Active transportation projects would likely include primary features that are at-ground level, like paths, and other components that are more elevated such as barrier fences, signage, and interpretive panels along the path. The nature of these types of projects is to facilitate enjoyment of scenic vistas and most elements would not rise very far above the ground surface. Thus, new project components such as paths or fencing would not impede the viewing of scenic vistas. Fencing, signs, and interpretive panels could, however, interfere with views if they create a strong contrast, by means of their materials or color, or if they introduce a visual element out of harmony/unity with the surrounding landscape or that is placed so it creates an awkward element in an otherwise vivid view of the landscape.

Operation and Maintenance projects that could affect scenic vistas include a mobility hub in Meyers, which would involve the construction of a new transit facility. If this project includes components that rise to heights that interfere with vistas along U.S. Highway 50 it would have the potential to adversely affect scenic vistas. Current structures and buildings in the vicinity are limited to one or two stories, and mostly allow views to the horizon. Still, some infrastructure features detract from the unity of the view and lower the visual quality. As these features are replaced or renovated, conditions will improve, and this project has the potential to add to that improvement. The review process for this project and other operation and maintenance projects added to the 2020 RTP/SCS would ensure adherence to TRPA Design Guidelines and El Dorado County policies for preserving scenic quality during the design and review process. Mitigation Measure 3.1-9b from the 2012 RTP/SCS EIR/EIS, which addresses project design review, would apply to above-grade, permanent project components to ensure they are composed in relation to the landscape. Project specific design and/or mitigation would be necessary for operation and maintenance projects that include signage and other features to reduce impacts to a less-than-significant level.

Other Operation and Maintenance projects may introduce equipment used to repair, clean, or clear roadways that could affect scenic vistas. This effect would be temporary due to the nature of the

work (e.g., snow plowing or asphalt resurfacing) and therefore would cease to be an issue when the work was completed. Impacts would be less than significant.

Technology projects that introduce signage to direct traffic flow in the case of weather events and congestion and to provide wayfinding in Tahoe City have the potential to affect scenic vistas. These projects would be subject to the TRPA Design Review Guidelines and to local design constraints where present. Additionally, Mitigation Measure 3.1-9b from the 2012 RTP/SCS EIR/EIS, which addresses project design review, would apply to above-grade, permanent project components to ensure they would be composed in relation to the landscape. Project specific design features and/or mitigation would be necessary for signage and other traffic management components to reduce impacts to a less-than-significant level.

With all these projects, there is potential for visual clutter that could interfere with scenic vistas. Projects implemented under the 2020 RTP/SCS would be similar in size, location, and type to those analyzed in the 2012 EIR/EIS and the 2017 IS/IEC. Construction of projects proposed under the 2020 RTP/SCS have the potential to result in temporary impacts to scenic quality. Mitigation Measure 3.9-1a from the 2012 RTP/SCS would apply to new and modified projects in the 2020 RTP/SCS and would address short-term construction impacts to scenic resources to ensure construction equipment and projects would be screened and hidden from public view. There is also potential that design for new and modified projects under the 2020 RTP/SCS would impact scenic vistas. Mitigation Measure 3.9-1b from the 2012 RTP/SCS EIR/EIS requires specific design review that considers scenic impact avoidance and/or mitigation for any projects with new or remodeled buildings, large signage, and above-grade trail components to ensure massing and orientation would provide a frame for views, or that sight lines would be considered relative to the placement of these above-grade components. This would ensure designs are modified, if needed, and other project-specific measures are implemented to prevent long-term damage to scenic vistas.

Projects would also be required to adhere to TRPA Design Guidelines, local jurisdictional guidance, and industry standards for excellence in trail design. For example, the TRPA Design Guidelines prioritize using the site to determine design, and require that topography, vegetation, natural features, aspect and orientation, and contextual setting, among other conditions, be considered when designing buildings, structures, and associated facilities that could impact the views from a given site. The TRPA Design Guidelines require that form, mass, and profile of individual buildings and architectural features be designed to blend with the natural terrain. They further recommend specific materials for walls, structures, and other associated features, depending on their context. For example, an architectural wall could fit in an urban environment, where a rough-sawn, cedar fence might be appropriate in a rural transition area or a rock wall in a rural environment. For trails and other linear projects, the detailed design review recommended in Mitigation Measure 3.1-9b, described below, would ensure that all components are harmonious with their surroundings.

Other projects with more prominent architectural or engineering features may require more detailed design review, so that design enhances the visual environment. Specifically, the proposed bridge replacement project at Echo Summit has the potential to obstruct views through the area during construction, although these would be short term, and has the potential to change the nature of views in the area. This project would be subject to Mitigation Measure 3.9-1a during construction and Mitigation Measure 3.9-1b during the design process. Finally, any bridges, elevated paths, trails or walkways, and all new buildings would be subject to Mitigation Measure 3.9-1b, including the parking lot expansions and boat inspection station under the SR 28 Central Corridor Improvements, the Class I Bike Path from East San Bernardino to West San Bernardino in El Dorado County, and the Caltrans Tahoe City Maintenance Station projects, among others.

Overall, substantial and adverse impacts to scenic vistas would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

New projects included in the 2020 RTP/SCS are proposed on SR 28 and U.S. Highway 50, state designated scenic highways, 2020 RTP/SCS These projects have potential to damage scenic resources along a state scenic highway. However, all projects would be subject to the Design Review Guidelines, local planning documents with policies about projects that occur within state scenic highways, including TRPA's guidance to include natural features in project design. Mitigation Measure 3.1-9b from the 2012 RTP/SCS EIR/EIS, which addresses project design review, would apply to above-grade, permanent project components to ensure they would be composed in relation to the landscape and would not impact aesthetic value along scenic highways. Mitigation would be necessary for specific projects that include above-grade components, structures, and other features, such as the bridge replacement project at Echo Summit along U.S. Highway 50, to reduce impacts to a less-than-significant level. New and modified projects under the 2020 RTP/SCS would be subject to 2012 RTP/SCS EIR/EIS Mitigation Measure 3.9-1a during construction and Mitigation Measure 3.9-1b during the design process. These measures would reduce short-term construction impacts to scenic resources along scenic highways and ensure design review is adequate to the specific site in which a project would occur. Mitigation measures would ensure designs are modified, if needed, and other project-specific measures are implemented, such as construction screening to reduce impacts along scenic highways.

Overall, substantial and adverse impacts to scenic highways would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

TRPA's Design Review Guidelines would apply to all projects implemented under the 2020 RTP/SCS. Many of the projects are proposed to increase connectivity and improve wayfinding, improve existing roadway conditions, and implement safety measures, such as signs that limit vehicle speed. In keeping with the TRPA's goal to "maintain and improve the overall quality of the built environment in the Lake Tahoe region," projects would necessarily be subject to the minimum design standards the agency sets forth (TRPA 1989). Furthermore, TRPA recognizes the importance of the appearance and aesthetic features of the communities in the Plan Area, as these communities depend upon the tourism industry, an economic sector driven in large part by the sense of place that the natural and built environments evoke. All proposed projects are intended to increase the visual quality as well as implement transportation goals.

There is potential for components from all projects proposed under the 2020 RTP/SCS to create visual clutter that could temporarily or permanently interfere with visual quality. These include facilities that support new active transportation projects, such as restrooms, fences, and signage; complete streets components that include industrial transportation features (signal lights, signs, etc.); roadway projects that include buildings and bridges; and technology projects that may implement roadway signage as part of the program. For example, the South Tahoe Greenway Shared Use Trail would include elevated boardwalks and bridges. All projects would be required to adhere to TRPA Design Guidelines, local jurisdictional guidance, and industry standards for excellence in trail design, such as those suggested by American Trails (2006) and be subject to Mitigation Measure 3.1-9b to ensure project design and all associated components enhance visual quality.

For example, the TRPA Design Guidelines prioritize using the site to determine design, and require that topography, vegetation, natural features, aspect and orientation, and contextual setting, among other conditions, be considered when designing buildings, structures, and associated facilities that could impact the views from/of a given site. They further require that form, mass, and profile of individual buildings and architectural features be designed to blend with the natural terrain. They also recommend specific materials for walls, structures, and other associated features, depending on their context. For trails and other linear projects, the detailed design review recommended in Mitigation Measure 3.1-9b will ensure that all components are harmonious with their surroundings.

For example, the two proposed Caltrans projects would require detailed design review. The new dormitory building on SR 89 at the Tahoe City Maintenance Station would replace existing buildings that are visible from the roadway, even though a 6-foot fence surrounds the property. The industrial buildings at the site are single-story, rectangular structures with flat roofs. Scattered pine trees occur at the perimeters. Fuel tanks and other maintenance-supporting components are also visible from the roadway. While the new building should conform, generally, to existing structures, the replacement should undergo design review, according to Mitigation Measure 3.1-9b, as there is opportunity to enhance the visual quality on the site.

Similarly, the bridge replacement associated with the Caltrans project on U.S. Highway 50 at Echo Summit would occur in an area with high visual quality and where travelers on the roadway would have very high visual sensitivity. The existing bridge is a combination of concrete and cut granite

that integrates with the mountainside across which it extends. Following the TRPA Design Guidelines, the replacement bridge design should continue to use the granitic rock outcroppings, retain the trees adjacent to the roadway, and ensure bridge components do not interfere with the scenic quality of the site. Implementation of Mitigation Measure 3.1-9b would further ensure project design meets the goals and intent of the TRPA guidelines. Implementation of Mitigation Measure 3.1-9a would ensure that scenic quality is preserved to the extent feasible during construction. With adherence to the guidelines and mitigation measures, impacts to scenic quality would be reduced to a less than significant level.

Additionally, new and modified projects under the 2020 RTP/SCS would be subject to 2012 RTP/SCS EIR/EIS Mitigation Measure 3.9-1a during construction and Mitigation Measure 3.9-1b during the design process. Mitigation Measure 3.9-1a would reduce short-term construction impacts to scenic resources to ensure construction equipment and projects are screened and hidden from public view. Any bridges, elevated paths, trails or walkways, and all new buildings would be subject to Mitigation Measure 3.9-1b, including the parking lot expansions and boat inspection station under the SR 28 Central Corridor Improvements, the Class I Bike Path from East San Bernardino to West San Bernardino in El Dorado County, and the Caltrans Tahoe City Maintenance Station projects, among others. Mitigation Measure 3.9-1b requires specific design review that considers scenic impact avoidance and/or mitigation would be applied to any projects with new or remodeled buildings, large signage, and above-grade trail components to ensure massing and orientation would provide a frame for views, or that sight lines would be considered relative to the placement of these above-grade components. This would ensure designs are modified, if needed, and other project-specific measures are implemented to prevent long-term damage to scenic vistas.

Overall, substantial and adverse impacts to scenic vistas would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Some projects could introduce new sources of light, including trail lighting, safety lights, and lights from vehicles traveling to, from, and through project areas. Light impacts were evaluated in the 2012 EIR/EIS and re-evaluated in the 2017 IS/IEC. Both documents indicate that the existing outdoor lighting standards described in the TRPA Code of Ordinances and other local night sky policies would govern new development. Similarly, new projects listed in the 2020 RTP/SCS would adhere to the lighting standards to reduce impacts that may adversely affect nighttime views. Because projects under the 2020 RTP/SCS will be similar in nature, scale, and location and will require site specific design and mitigation, impacts to new sources of lighting would be less than significant.

Glare occurs when the sun reflects off light-colored surfaces, windows, and the windshields of parked cars. Adherence to the limited color palette prescribed in the TRPA Design Standards would ensure that light-colored surfaces and unshielded glass would not occur, thus preventing glare. Furthermore, while projects could increase the number of visitors, and thus the number of parked cars. Parking management, vegetation screening, and other measures would ensure that there would be limited increase in glare from more parked cars. It is possible that components of new

facilities would have reflective materials as part of their designs. This could include wayfinding and interpretive signage, windows, and building or structure siding and roof materials. These components would be subject to the TRPA and local jurisdictional design guidelines that include using materials that appear natural and blend with the landscape. Mitigation Measure 3.9-1b from the 2012 RTP/SCS EIR/EIS would apply to projects under the 2020 RTP/SCS and requires specific design review that considers visual impact avoidance and/or mitigation, including the use of reflective materials, excessive lighting, and other design attributes that could cause impacts to light and glare. Mitigation Measure 3.9-1b would be applied to any projects with new or remodeled buildings, large signage, and elevated or above-grade trail components to ensure materials are compatible with the surroundings and that they would not create glare or other visual concerns. Mitigation measures from the 2012 RTP/SCS would ensure designs are modified, if needed, and other project-specific measures are implemented to prevent undue generation of light or glare.

Overall, substantial and adverse impacts relative to light and glare would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

TRPA Environmental Checklist

Section 18 – Scenic Resources/Community Design

a. Will the proposal be visible from any state or federal highway, Pioneer Trail or from Lake Tahoe?

Most of the 2020 RTP/SCS projects would occur near or adjacent to a federal highway or within viewing distance of Lake Tahoe. The discussion of impacts related to visibility of projects is included under CEQA item “a” above. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Overall, substantial and adverse impacts relative to visibility would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

b. Will the proposal be visible from any public recreation area or TRPA designated bicycle trail?

Active transportation projects under the 2020 RTP/SCS would occur near or coincidental with TRPA-designated trails to provide connections and expand the existing trail network. The discussion of impacts related to visibility from public recreation areas and trails is included under CEQA items “a,” “b,” and “c” above. Overall, substantial and adverse impacts relative to public recreation visibility would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- c. *Will the proposal block or modify an existing view of Lake Tahoe or other scenic vista seen from a public road or other public area?*

Many of the 2020 RTP/SCS projects would occur within viewing distance of Lake Tahoe or near, adjacent to, or coincidental with public roads and other public areas. The discussion of impacts related to blocking scenic vistas is included under CEQA items “a,” “b,” and “c” above. Overall, substantial and adverse impacts relative to scenic vistas would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- d. *Will the proposal be inconsistent with the height and design standards required by the applicable ordinance or Community Plan?*

Most of the 2020 RTP/SCS projects have primary components that occur at-grade, but some may include above-grade components, such as signage, restrooms, barrier fences, and other associated features. Each project would be subject to TRPA design review and would be required to comply with TRPA Design Guidelines, as well as local ordinances and guidelines. The discussion of impacts related to design standards is included under CEQA items “a,” “b,” and “c” above. All projects would be subject to Mitigation Measure 3.1-9b to ensure massing, height, and other design elements would enhance visual quality, consistent with applicable ordinances, design guidelines, and the TRPA Thresholds. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC

NO WITH MITIGATION

- e. *Will the proposal be inconsistent with the TRPA Scenic Quality Improvement Program (SQIP) or Design Review Guidelines?*

Each 2020 RTP/SCS project would be subject to TRPA design review and would be required to comply with TRPA Design Guidelines, as well as local ordinances and guidelines. All projects would be subject to Mitigation Measure 3.1-9b to ensure they meet or exceed the SQIP and Visual Quality Thresholds. The discussion of impacts related to design standards is included under CEQA items “a,” “b,” and “c” above. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC

NO WITH MITIGATION

Section 7 – Light and Glare

a. Will the proposal include new or modified sources of exterior lighting?

Specific projects may include additional exterior lighting, particularly complete streets and active transportation projects. The discussion of impacts related to lighting are included under CEQA item “d” above. Overall, substantial and adverse impacts relative to exterior lighting would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

g. Will the proposal create new illumination which is more substantial than other lighting, if any, within the surrounding area?

Specific projects may include additional exterior lighting, particularly complete streets and active transportation projects. The discussion of impacts related to lighting are included under CEQA item “d” above. Projects would be required to comply with all local and regional exterior lighting ordinances, including dark sky protection criteria (TRPA Code of Ordinances Chapter 13.5.3.5.a through d). In addition, all projects would be subject to Mitigation Measure 3.1-9b to ensure lighting design would be limited to that necessary for safety and not be more than the context in which it is situated. Overall, substantial and adverse impacts relative to illumination would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

h. Will the proposal cause light from exterior sources to be cast off-site or onto public lands?

Specific projects may include additional exterior lighting, particularly complete streets and active transportation projects. The discussion of impacts related to lighting are included under CEQA item “d” above. Compliance with exterior lighting standards would include shielding, downward orientation, and minimal light levels to ensure light does not spill onto adjacent lands, including public lands. Furthermore, projects would be required to comply with all local and regional exterior lighting ordinances, including dark sky protection criteria (TRPA Code of Ordinances Chapter 13.5.3.5.a through d). All projects would also be subject to Mitigation Measure 3.1-9b to ensure lighting design would be limited to that necessary for safety and not be more than the context in which it is situated. Overall, substantial and adverse impacts relative to light from exterior sources would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Although new lighting could occur on public lands where new recreation projects are implemented, with mitigation new significant impacts or substantially more severe impacts would not occur.

NO WITH MITIGATION

- i. Will the proposal create new sources of glare through the siting of the improvements or through the use of reflective materials?*

Compliance with TRPA's Design Guidelines and other local design policies, and implementation of Mitigation Measure 3.9-1b from the 2012 EIR/EIS, would ensure that materials used on any structures, signage, and road components would not be reflective or generate glare. The discussion of impacts related to glare are included under CEQA item "d" above. All projects would be subject to Mitigation Measure 3.1-9b to ensure architectural finishes and design fit the context in which they occur (i.e., urban, rural transition, rural) per the TRPA Design Guidelines (TRPA 1989). Overall, substantial and adverse impacts relative to glare would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

This page intentionally left blank.

2 Agriculture & Forestry Resources

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

j.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	2012 RTP/SCS EIR/EIS Section 5.1.1	No	No	No	N/A
k.	Conflict with existing zoning for agricultural use or a Williamson Act contract?	2012 RTP/SCS EIR/EIS Section 5.1.1	No	No	No	N/A
l.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	2012 RTP/SCS EIR/EIS Section 5.1.1	No	No	No	N/A
m.	Result in the loss of forest land or conversion of forest land to non-forest use?	2012 RTP/SCS EIR/EIS Section 5.1.1	No	No	No	N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
n. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	2012 RTP/SCS EIR/EIS Section 5.1.1	No	No	No	N/A

Discussion

Agricultural Resources are discussed in the 2012 EIR/EIS Section 5.1.1, *Effects Not Found to Be Significant* as no land is currently designated for agricultural use in the Plan Area. Impacts related to forestry resources are discussed in Section 4, *Biological Resources*, and impacts related to land use and zoning are discussed in Section 11, *Land Use and Planning*, of this IS/IEC.

CEQA Environmental Checklist

- a. *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

There is no land zoned for agricultural use in the Plan Area (TRPA 2020a). Similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC, there would be no impact to important farmland under the 2020 RTP/SCS. No new significant impacts or substantially more severe impacts would occur.

NO IMPACT

- b. *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*

There is no land zoned for agricultural use in the Plan Area (TRPA 2020a). Similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC, there would be no impact to agricultural uses or a Williamson Act contract under the 2020 RTP/SCS. No new significant impacts or substantially more severe impacts would occur.

NO IMPACT

- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*

The Plan Area includes no lands zoned for timber production (TRPA 2020c). Please refer to Section 4, *Biological Resources*, for a discussion of forest land in the Plan Area. Development under the 2020 RTP/SCS would primarily be concentrated in existing community centers that are largely developed or previously disturbed and would likely require less tree removal than new uses outside of urban areas. Any proposed transportation or land use project that proposes tree removal would require permits and compliance with TRPA's Code of Ordinances Section 33.6, *Vegetation Protection During Construction*. Additionally, specific provisions for tree removal in the Plan Area are provided in the TRPA Code (Chapter 61, and Chapters 36, 33, 62) and all tree removal for trees greater than 14 inches dbh requires review and approval by TRPA. TRPA's existing policies and Code provisions would require development and implementation of project-specific measures to minimize or avoid impacts to forestland. Therefore, projects proposed under the 2020 RTP/SCS do not conflict with the use of forest land, timberland, or timberland zoned Timberland Production. Similar to the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC, there would be no impact to forestland or timberland under the 2020 RTP/SCS. No new significant impacts or substantially more severe impacts would occur.

NO IMPACT

- d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

Projects and policies implemented under the 2020 RTP/SCS may result in removal of individual trees but would not result in the conversion of forest land to non-forest use, similar to projects included in the 2012 and 2017 RTP/SCS. As discussed under CEQA item "c" new and modified projects under the 2020 RTP/SCS would adhere to the TRPA Code and existing policies for forest and tree protection. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

There is no land zoned for agricultural use in the Plan Area and, similar to the 2012 RTP/SCS and 2017 update, the 2020 RTP/SCS projects do not conflict with lands zoned as forest land or timberland. There would be no conversion of farmland to non-agricultural use or forest land to non-forest use. No impact would occur, similar to the findings of the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO IMPACT

TRPA Environmental Checklist

There are no TRPA environmental checklist items specific to this topic.

This page intentionally left blank.

3 Air Quality

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Conflict with or obstruct implementation of the applicable air quality plan?	2012 RTP/SCS EIR/EIS Impact 3.4-1	No	No	No	N/A
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	2012 RTP/SCS EIR/EIS Impact 3.4-2 and Impact 3.4-3	No	No	No	Yes
c. Expose sensitive receptors to substantial pollutant concentrations?	2012 RTP/SCS EIR/EIS Impact 3.4-4 and Impact 3.4-5	No	No	No	Yes
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	2012 RTP/SCS EIR/EIS Impact 3.4-6	No	No	No	N/A

TRPA Environmental Checklist: Section 2 – Air Quality

Will the proposal result in:

a. Substantial air pollutant emissions?	2012 RTP/SCS EIR/EIS Impact 3.4-7	No	No	No	N/A
b. Deterioration of ambient (existing) air quality?	2012 RTP/SCS EIR/EIS Impact 3.4-	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
	2 and Impact 3.4-3				
c. The creation of objectionable odors?	2012 RTP/SCS EIR/EIS Impact 3.4-6	No	No	No	N/A
e. Increased use of diesel fuel?	2012 RTP/SCS EIR/EIS Impact 3.4-2 and Impact 3.4-3	No	No	No	Yes

Discussion

The analysis in this section is based on the Air Quality Study prepared for the 2020 RTP/SCS by Rincon in August 2020. For detailed information on air quality background, assumptions, and model outputs, please see Appendix E.

Air Quality Background

The Plan Area lies in the Lake Tahoe Air Basin (LTAB), which is primarily a depression between the crests of the Sierra Nevada and Carson ranges at a surface elevation of 6,260 feet above sea level. The mountains surrounding Lake Tahoe are approximately 8,000 to 9,000 feet high, with some reaching over 10,000 feet.

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants, referred to as “criteria pollutants.” Under these laws, the U.S. Environmental Protection Agency (USEPA) and the CARB have established ambient air quality standards (AAQS) for criteria pollutants. Primary criteria pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory) into the atmosphere and include carbon monoxide (CO), volatile organic compounds (VOC)/reactive organic gasses (ROG)⁵, nitrogen oxides (NO_x), fine particulate matter (PM₁₀ and PM_{2.5}), sulfur dioxide (SO₂) and lead (Pb). Secondary criteria pollutants are created by atmospheric chemical and photochemical reactions. ROG, together with NO_x, form the building blocks for the creation of photochemical (secondary) pollutants. Secondary pollutants include

⁵ CARB defines VOC and ROG similarly as, “any compound of carbon excluding CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate,” with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions and the term ROG is used in this report.

oxidants, ozone, and sulfate and nitrate particulates (smog). Air quality specific criteria pollutants is monitored throughout the Plan Area as shown in Table 3.

Table 3 Air Quality Monitoring in the Plan Area

Monitoring Agency	Location	Pollutants Measured
TRPA	Lake Tahoe Community College ¹	PM _{2.5} , PM ₁₀ , visibility
TRPA	TRPA offices, Stateline	PM _{2.5} ; CO; NO; ozone
USFS	DL Bliss State Park ¹	PM _{2.5} , PM ₁₀ , visibility
Placer County	Tahoe City ²	Ozone and PM _{2.5}
Washoe County	Incline Village	Ozone
CARB	South Lake Tahoe	Ozone and PM ₁₀

¹ Part of national IMPROVE network

² Paid for in part by TRPA

NO = nitrogen oxide

A toxic air contaminant (TAC) is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. TACs may result in long-term health effects such as cancer, birth defects, neurological damage, asthma, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation, runny nose, throat pain, and headaches. TACs are considered either carcinogenic or non-carcinogenic based on the nature of the health effects associated with exposure. For carcinogenic TACs, potential health impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Non-carcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

Regulations

FEDERAL

The federal CAA governs air quality in the U.S., administered by the USEPA. Air quality in California is also governed by regulations under the California CAA, which is administered by the CARB at the State level. At the regional and local levels, local air districts such as Air Quality Management Districts (AQMD) and air pollution control districts (APCD) typically administer the federal and California CAAs. The LTAB is currently in attainment of all NAAQS and CAAQS except for the State PM₁₀ standard. The LTAB is a designated maintenance area for CO under the federal CAA.

Pursuant to 176(c) of the federal CAA (42 United States Code Section 7506(c)), Metropolitan Planning Organizations (MPO) and the U.S. Department of Transportation (USDOT) must make a determination that the RTP and the Regional Transportation Improvement Program (RTIP) conform to the SIP for air quality. Section 176(c) of the CAA, as amended (42 United States Code 7401 et seq.) prohibits agencies of the Federal government from engaging in, supporting, providing financial assistance to, or issuing permits for activities, which do not conform to an applicable SIP. The transportation conformity regulations provided in CFR Title 40, Chapter I, Part 51, Subpart T, Section 51.392-51.400, 51.404, 51.410-51.450, 51.460, and 51.462 were adopted by Placer County APCD in Rule 509 and El Dorado County AQMD in Rule 503; however, Placer County APCD Rule 509 exempts the Lake Tahoe Air Basin portion in Placer County from compliance with this rule. Currently, the Plan Area is in conformance for all criteria pollutants under federal air quality standards.

On September 27, 2019, the USEPA and the National Highway Safety Administration published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. The Part One Rule revokes California's authority to set its own GHG emissions standards and zero-emission vehicle mandates in California. To account for the effects of the Part One Rule, the CARB released off-model adjustment factors on November 20, 2019 to adjust criteria air pollutant emissions outputs from CARB's Emission Factor model (EMFAC) (CARB 2019a).

STATE

In California, CARB is responsible for meeting the State requirements of the federal CAA, administering the California CAA, and establishing CAAQS. The California CAA, as amended in 1992, requires all air districts in the state to endeavor to achieve and maintain the CAAQS. The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. More recently, CARB developed a new certification fuel for 2015 and newer vehicles, which contains 10 percent ethanol by volume (E10). In addition, the California Legislature enacted SB 656 to reduce public exposure of airborne particulate matter in 2003, which required the CARB to develop and adopt a list of readily available, feasible and cost-effective control measures that could be employed by the CARB and local air districts. The CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

In 2004, the CARB approved a revision to the SIP that consists of an update to CO maintenance plan for ten areas within California that had attained the federal air quality standard for CO since the early 1990s. This included North Lake Tahoe and South Lake Tahoe. The 2004 revisions to the Maintenance Plan (2004 CO Maintenance Plan) were an update to the 1998 Carbon Monoxide Maintenance Plan and show how attainment would be maintained through 2018 and beyond. Part of the maintenance strategy involves allocation of transportation emissions budgets to the maintenance areas as approved by the USEPA. On March 21, 2018, the USEPA issued a letter stating that as of June 1, 2018, transportation conformity requirements no longer apply for the CO NAAQS for Federal Highway Administration/Federal Transit Association projects as defined in 40 CFR 93.101 in California because the standard 20-year maintenance planning period per 40 CFR 93.102(b)(4) ended and the maintenance plan did not specify a longer maintenance period (USEPA 2018). Therefore, the Plan is in attainment with the SIP.

On April 3, 2012, the State of Nevada submitted a second 10-year limited maintenance plan (LMP) for the Lake Tahoe Nevada Area for the CO NAAQS to the USEPA. An LMP is an option whereby an area's maintenance demonstration is considered to be satisfied for "not classified" areas if the monitoring data show the design value is at or below 7.65 ppm, or 85 percent of the level of the 8-hour CO NAAQS. The 2012 LMP addressed maintenance of the CO NAAQS for a second 10-year period beyond the original 10-year maintenance period, which began in 2003 when the State of Nevada submitted a resignation request for the Lake Tahoe Nevada Area from nonattainment to attainment for the CO NAAQS. On August 26, 2016, the State amended the 2012 submittal with a supplemental SIP submittal, and thereby approved the 2012 plan.

LOCAL

Attainment of air quality standards in the Lake Tahoe Region is under the jurisdiction of the TRPA Bi-State Tahoe Regional Planning Compact, which works with local air districts (El Dorado County AQMD and Placer County APCD) to assure compliance with TRPA threshold standards and federal, state, and local standards for air quality and visibility. The TRPA Bi-State Compact recognizes air as a natural resource and requires that TRPA establish environmental threshold carrying capacity standards for air quality. The Bi-State Compact directs TRPA to develop a land use plan that considers air resources, as well as a transportation plan that reduces air pollution from motor vehicles. TRPA is also required to attain federal, state, and local air quality standards for the portions of the Plan Area in which they apply. The Air Quality Sub-element and Transportation Element of the TRPA Regional Plan establish goals and policies to achieve and maintain TRPA's air quality thresholds and all applicable federal, state, and local standards for air quality.

In addition to existing permit limits, TRPA has developed a best construction practices policy for construction emissions, pursuant to the requirements of 2012 RTP/SCS EIR/EIS mitigation measures adopted by the TRPA Governing Board. The policy and related conditions were approved at the November 20, 2013 meeting of the TRPA Governing Board. The policy addresses construction-generated emissions of air pollutants and GHGs associated with development under the Lake Tahoe Regional Plan. The overall effectiveness of these measures and other efforts to attain and maintain air quality standards continue to be monitored through a comprehensive multi-agency air quality program.

Significance Thresholds

TRPA

TRPA also has its own air quality standards, which can be found as a part of the 2015 Threshold Evaluation Report, which was released by TRPA in September 2016. This updated the 2011 Threshold Evaluation Report used in the 2012 RTP/SCS EIR/EIS to determine the region's attainment of TRPA AAQS. The report generally found that air quality in the region either remained the same or improved for most pollutant standards, similar to the designations made in 2011 except for the highest 8-hour average concentration of ozone, which moderately improved since 2011 but had not met TRPA targets. In the 2011 Threshold Evaluation Report, TRPA's standards for 8-hour concentration of ozone were met. TRPA targets for the 24-hour PM₁₀ concentration were not met in either the 2011 or 2016 Threshold Evaluation Report. CO targets were met despite the changes to TRPA's threshold standard for CO. There has been no subsequent update to the 2015 Threshold Evaluation Report since the 2017 RTP/SCS. TRPA's air quality threshold standards and how they address CAAQS and NAAQS for LTAB regional air quality are shown in Table 2 of Appendix E.

PLACER COUNTY APCD

On October 13, 2016, Placer County APCD adopted revised CEQA thresholds of significance for criteria pollutant emissions (Placer County APCD 2016a). The revised thresholds are supported by Placer County APCD's *California Environmental Quality Act Thresholds of Significance Justification Report* released in September 2016 (Placer County APCD 2016b) and were used in the evaluation of impacts related to the 2017 RTP/SCS IS/IEC occurring within the Placer County portion of the LTAB. Based on the Placer County APCD thresholds of significance, a project would result in a significant project-level air quality impact if any of the following would occur:

- A net increase in short-term construction-related emissions of ROG, NO_x, or PM₁₀ that exceeds mass emissions of 82 pounds per day in Placer County
- A net increase in long-term operation-related (regional) emissions of ROG or NO_x that exceeds mass emissions of 55 pounds per day or a net increase in long-term operation-related (regional) emissions of PM₁₀ that exceeds mass emissions of 82 pounds per day in Placer County
- Exposure of sensitive receptors to TAC emissions that would exceed 10 in 1 million for the carcinogenic risk (i.e., the risk of contracting cancer) or a non-carcinogenic Hazard Index of 1 for the maximally exposed individual

In addition, a project would result in a cumulatively considerable contribution to a cumulative air quality impact if it would result in a net increase in long-term operation-related (regional) emissions of ROG or NO_x that exceed 55 pounds per day or a net increase in long-term operation-related (regional) emissions of PM₁₀ that exceeds 82 pounds per day.

EL DORADO COUNTY AQMD

In February 2002, El Dorado County AQMD adopted CEQA thresholds of significance for criteria pollutant emissions. The revised thresholds are supported by El Dorado County AQMD's *Determining Significance of Air Quality Impact Under the California Environmental Quality Act (CEQA)*, released in February 2002, and were used in the evaluation of impacts related to the 2012 RTP/SCS EIR/IES and 2017 RTP/SCS IS/IEC occurring within the El Dorado County portion of the LTAB. Based on the El Dorado County AQMD thresholds of significance, a project would result in a significant project-level air quality impact if any of the following would occur:

- The project would result in construction or operational emissions of ROG or NO_x in excess of 82 pounds per day. Special requirements for determining significance may apply in the LTAB as imposed by TRPA in interpreting its 0.08 ppm one-hour significance threshold for ozone. However, per El Dorado AQMD guidance, "there is no reason to adopt a more stringent significance threshold for individual projects in the Tahoe region for CEQA purposes in light of the TRPA threshold...because there is no direct relationship between the TRPA threshold, which is expressed as an ozone concentration in parts per million, and the CEQA ozone precursor significance thresholds designated above, which are expressed as mass emissions. Accordingly, the same criteria are considered appropriate for the LTAB portion of the county as well as the Mountain Counties Air Basin portion" (El Dorado AQMD 2002).
- The project would result in construction or operation emissions of other pollutants (PM₁₀, CO, SO₂, NO₂, sulfates, lead, hydrogen sulfide) that could cause or contribute to violations of any applicable NAAQS or CAAQS (including visibility). In the LTAB, the TRPA visibility standard is applied.
- The project would result in construction or operational emissions of TACs that cause a lifetime cancer risk greater than one in one million (10 in one million if best available control technology for TACs is applied), or ground-level concentrations of non-carcinogenic toxic air contaminants with a Hazard Index greater than 1.

The El Dorado CEQA Guide also outlines the following qualitative criteria that would result in a project being found significant:

- The project triggers any of the air quality significance criteria in Appendix G of the *CEQA Guidelines*

- The project results in excessive odors, as defined under the California Health & Safety Code definition of an air quality nuisance
- The project results in land use conflicts with sensitive receptors, such as schools, elderly housing, hospitals, or clinics, etc.
- The project, as proposed, is not in compliance with all applicable El Dorado County AQMD rules and regulations
- The project does not comply with USEPA general and transportation conformity regulations

In addition, according to El Dorado County AQMD, a project would result in a considerable contribution to a cumulative impact to air quality if one or more of the following conditions is met:

- The project would require a change in the land use designation (general plan amendment or rezone) that increases ROG and NO_x emissions as compared to the prior approved use
- The project would individually exceed the project-level significance thresholds for ROG or NO_x
- For potentially significant air quality impacts, the lead agency for the project does not require the project to implement the emission reduction measures contained in and/or derived from the El Dorado County AQMD Air Quality Attainment Plan
- The project is in a jurisdiction that does not implement the emission reduction measures contained in and/or derived from the El Dorado County AQMD Air Quality Attainment Plan
- For PM₁₀, SO₂, and/or NO₂:
 - The project is primarily an industrial project or the majority of the emissions of these pollutants is attributable to stationary sources of air pollution subject to regulation by El Dorado County AQMD and one or more of the following conditions are met:
 - Project-level emissions of these pollutants are significant
 - The project would not comply with all applicable rules and regulations of El Dorado County AQMD
 - A modeling analysis indicates that the project's impacts would exceed Class III Prevention of Significant Deterioration (PSD) increments (Class II in Lake Tahoe)
 - The project is primarily a development project or the majority of the emissions of these pollutants is attributable to motor vehicle sources and one or more of the following conditions are met:
 - Project-level emissions of these pollutants are significant
 - The project would not comply with all applicable rules and regulations of El Dorado County AQMD
 - Project emissions are not cumulatively significant for ROG, NO_x, and CO
- The combined TAC concentrations from multiple projects creates a composite lifetime cancer risk greater than one in one million (10 in one million if best available control technology for TACs is applied), or ground-level concentrations of non-carcinogenic toxic air contaminants with a Hazard Index greater than 1. However, in the event that the project-level cancer risk is less than one in one million and the non-cancer Hazard Index is less than 0.5, a project is considered to be a *de minimis* contributor to the cumulative risk, and the project's contribution to the cumulative impact would not be cumulatively considerable.

Methodology

SHORT-TERM EMISSIONS METHODOLOGY

Emissions from construction activities represent temporary impacts that are typically short in duration depending on the size, phasing, and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. Construction-related emissions are speculative at the RTP/SCS level because such emissions are dependent on the characteristics and timing of individual development projects. However, because construction of the 2020 RTP/SCS would generate temporary criteria pollutant emissions, primarily due to the operation of construction equipment and truck trips, a qualitative analysis is provided.

LONG-TERM EMISSIONS METHODOLOGY

For this analysis, the baseline year was updated to 2018 from the 2014 baseline year used in the 2017 RTP/SCS IEC/IS to accommodate new VMT estimates that characterize updated existing conditions and use TRPA’s recently updated Travel Demand Model. The planning horizon for the 2020 RTP/SCS has been updated to 2045, which is five years longer than the previous projection year of 2040 under the 2017 RTP/SCS.

Air emissions from on-road mobile sources were calculated using emission factors from CARB’s EMFAC2017 model, off-model adjustment factors to account for the effects of the SAFE Vehicles Rule, and regional vehicle miles travelled (VMT) from TRPA’s Travel Demand Model, shown in Table 4. Consistent with the methodology used in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IEC/IS, TRPA assumes that the vehicle fleet information contained in the EMFAC model for the Lake Tahoe subareas of Placer and El Dorado counties would be representative of vehicles throughout the LTAB because the factors that determine vehicle choice (e.g., lifestyle, mobility, environmental, and local economic factors) do not differ dramatically throughout the region. Therefore, for the purposes of modeling mobile source criteria pollutant emissions, VMT in Nevada was distributed proportionally between the Lake Tahoe subareas of Placer and El Dorado counties based on VMT for the two counties, to conservatively account for Nevada emissions.

Table 4 2020 RTP/SCS VMT Data

	Annual Daily Average VMT		
	Eastern El Dorado County (South Shore)	Eastern Placer County (North Shore)	Nevada
2018	522,021	271,521	627,211
2035	533,108	269,873	530,476
2045	548,515	272,966	532,994

VMT = vehicle miles traveled

Source: TRPA 2020d

The USEPA approved the use of EMFAC2017 for transportation conformity in California on August 15, 2019 (Federal Register Volume 84, Number 158, EPA-R09-OAR-2019-0472). EMFAC emission factors are established by the CARB and accommodate mobility assumptions (e.g., vehicle fleets, speed, delay times, average trip lengths, time of day and total travel time) provided by TRPA’s Travel Demand Model and socioeconomic growth projections based on data from the UCLA Anderson Forecast, California Department of Finance, California Board of Equalization, California Energy Commission, U.S. Department of Energy, Energy Information Administration, and U.S. Bureau of

Economic Analysis. Since the 2017 RTP/SCS IEC/IS was generated, CARB released EMFAC2017. This replaced EMFAC2014, the model that was used in the 2017 RTP/SCS IS/IEC to estimate mobile source emissions in California. EMFAC2017 accounts for updated fleet characterization, vehicle activity profile, and socio-econometric forecasting data; new vehicle testing data for emission rates; updated assumptions on the Advanced Clean Cars regulation; and implementation of new regulations and policies including Phase 2 GHG standards for heavy-duty vehicles and the Road Repair and Accountability Act of 2017 (SB 1). Table 9 of Appendix E provides a comparison of weighted average running exhaust emissions factors for the LTAB region using EMFAC2014, which was utilized to model emissions in the 2017 RTP/SCS IS/IEC and EMFAC2017, which is used in this analysis. Weighted average running exhaust emission factors in EMFAC2017 are generally higher than those of EMFAC2014 except for those for ROG and SO_x. To account for the effects of the SAFE Vehicle Rule on mobile source criteria air pollutant emissions, off-model adjustment factors published by the CARB (2019) were applied to NO_x exhaust, PM exhaust, and CO exhaust emissions from gasoline-powered passenger cars (LDA) and light duty-trucks (LDT1, LDT2, and MDV). Projected vehicle emissions on the TRPA transportation network for the year 2045 under the 2020 RTP/SCS were compared with emissions estimated for baseline year 2018.

The 2020 RTP/SCS proposes one new water taxi project (the North Shore Water Taxi Project Phase 2035), which would replicate the existing South Shore water taxi service for destinations on the North Shore. Emissions from the proposed Northshore Water Taxi Project Phase 2035 were estimated using Sacramento Metropolitan AQMD's Harbor Craft, Dredge and Barge Emission Factor Calculator, which is based on the CARB's Harbor Craft Database. To estimate watercraft emissions, project information, vessel type, and engine type were input into the Emission Factor Calculator. Based on existing South Shore water taxi service, it was assumed the North Shore water taxi would operate for eight hours a day, seven days a week between June 1 and September 30 each year. Emissions from the North Shore Water Taxi Project Phase 2035 were added to the waterborne transit emissions estimated in the 2012 RTP/SCS EIR/EIS to provide a conservative estimate of impacts associated with the 2020 RTP/SCS.

CEQA Environmental Checklist

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

For the California portion of the LTAB, the applicable federal air quality maintenance plan for Lake Tahoe is the Carbon Monoxide Maintenance Plan (CO Maintenance Plan) originally adopted in 1996 and revised in 2004 (CARB 2004). The CO Maintenance Plan tiers off the Regional Transportation Plan – Air Quality Plan, adopted by TRPA in 1992. However, as of June 1, 2018, transportation conformity requirements no longer apply for the CO NAAQS for federal aid projects as defined in 40 CFR 93.101 in California because the standard 20-year maintenance planning period per 40 CFR 93.102(b)(4) has ended and the maintenance plan does not specify a longer maintenance period (USEPA 2018). Therefore, no air quality plans are applicable to the 2020 RTP/SCS. As such, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Construction

The LTAB is currently in attainment of all NAAQS and CAAQS except for the PM₁₀ CAAQS. The types of short-term construction-generated emission activity would generally be the same under the 2020 RTP/SCS as the 2017 RTP/SCS because the differences between the 2017 RTP and the 2045 RTP consist of adding new projects, modifying several projects that remain on the list, and removing projects that have been completed since 2017. The new projects are similar in type to those included in the 2017 RTP/SCS and include construction of bikeways, trails, sidewalks; installation of complete streets improvements and variable speed signs; improvements to parking management and wayfinding; and operation and maintenance activities for existing roadways and transit, bicycle, and pedestrian facilities. The 2045 RTP would also include the remaining 92 yet-to-be-completed projects as under the 2017 RTP/SCS, some of which are currently being implemented.

One of the two largest infrastructure construction projects in the 2012 RTP, State Route 89/Fanny Bridge Community Revitalization Project, has been approved and construction has been initiated since adoption of the IS/IEC in 2017. As discussed in the 2017 RTP/SCS IS/IEC, although the 2012 RTP EIR/EIS concluded that project-related construction impacts on air quality would be significant and unavoidable, a project-level analysis of the SR 89/Fanny Bridge concluded that construction-related ROG, NO_x, PM₁₀, PM_{2.5}, and CO emissions would be less than significant (see Impact 4.2-2 of the SR 89/Fanny Bridge EIR/EIS/EA [TRPA 2015]). Projects listed in the 2020 RTP/SCS would be constructed at an equivalent or smaller scale than the Route 89/Fanny Bridge Community Revitalization Project, based on current project descriptions and a comparison of anticipated construction costs and project type (see TRPA 2020e). Because construction of the Route 89/Fanny Bridge project was determined to have less-than-significant impacts on air quality, project-level construction under the 2020 RTP/SCS would have a similar impact level. This would include construction for all 92 projects identified in the 2017 RTP that remain on the constrained list of projects under the 2020 RTP/SCS, and new projects added to the 2020 RTP/SCS. Therefore, the maximum daily criteria pollutants and precursor emissions generated by construction activities would not exceed air quality standards at the project-level with the implementation of TRPA's Best Construction Practices Policy (Mitigation Measure 3.4-2 from the 2012 RTP/SCS EIR/EIS) and compliance with all applicable Placer County APCD or El Dorado County AQMD rules; and construction emissions would not result in a cumulatively considerable net increase in criteria pollutants for which the LTAB is in nonattainment. Overall, substantial and adverse impacts from construction emissions would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

The land use scenario envisioned by the 2020 RTP/SCS is similar to that contained in the 2017 RTP/SCS. The regional forecast includes minor changes in development, population demographics, and visitation. This land use scenario, consistent with the 2017 RTP/SCS, concentrates the forecasted growth in population and employment in already urbanized areas. New development under the 2020 RTP/SCS is anticipated to increase through the years 2035 and 2045, in keeping with State-mandated housing (Appendix D). This development would accommodate increases to full-time residential population and day and overnight visitors to the Plan Area, which would result in continued and increased use of overnight lodging. Nevertheless, the 2020 RTP/SCS does not

facilitate or propose new residential, commercial, or visitor-serving development and the transportation projects would introduce minimal land use changes. In addition, the growth anticipated in this update is less than that analyzed in the 2012 RTP/SCS EIR/EIS. The 2012 analysis anticipated a 2035 population of 60,365 residents in the Lake Tahoe region; however, the current 2020 regional forecast anticipates a 2045 population of 58,041 residents (Appendix D). Therefore, current population forecast is lower than previously forecasted under the 2012 RTP/SCS EIR/EIS. Regional population increase is therefore expected to be consistent with that estimated during previous planning processes in 2012 and 2017. Because the land use scenario included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

Operational Emissions

The LTAB is currently in attainment of all NAAQS and CAAQS except for the PM₁₀ CAAQS. Updated emissions modeling results for the 2020 RTP/SCS are summarized in Table 5 for ozone precursors, ROG and NO_x, CO, SO₂, and particulate matter. As shown therein, criteria pollutant emissions modeling for the 2020 RTP/SCS indicates an overall reduction in criteria air pollutants as compared to the 2018 baseline. The estimated reductions in on-road mobile source emissions are primarily due to stricter vehicle emissions standards that will phase in over the planning period as reflected in EMFAC2017 emission factors. Thus, the 2020 RTP/SCS would result in a substantial long-term reduction in criteria air pollutant emissions. The emissions modeling results are similar to those in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IEC/IS, which estimated overall reductions in criteria air pollutants.

Table 5 2020 RTP/SCS Net Change in Daily Basin-wide Operational Emissions (2018-2045)

Source	Daily Emissions (lbs/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
On-road Mobile Sources ¹	(2,167.8)	(3,446.9)	(15,520.1)	(11.8)	(51.6)	(48.1)
Waterborne Transit ² and Water Taxi Service ³	63.9	474.5	471.6	0.7	12.6	12.5
Total Net Change (2018-2045)	(2,103.9)	(2,972.4)	(15,048.5)	(11.1)	(39.0)	(35.6)
Placer County APCD Thresholds	55	55	n/a	n/a	82	n/a
El Dorado County AQMD Thresholds	82	82	n/a	n/a	n/a	n/a
APCD/AQMD Thresholds Exceeded?	No	No	n/a	n/a	No	n/a

Source	Daily Emissions (lbs/day)				
	ROG	NO _x	CO	SO _x	PM ₁₀

() denotes a negative number.

lbs/day = pounds per day; ROG = reactive organic gases; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = particulate matter measuring no more than 10 microns in diameter; PM_{2.5} = particulate matter measuring no more than 2.5 microns in diameter; APCD = Air Pollution Control District; AQMD = Air Quality Management District; n/a = not applicable (The air districts have not adopted thresholds for these pollutants.)

¹ Emission modeling completed using EMFAC 2017 and CARB’s off-model adjustment factors to account for SAFE Vehicles Rule implementation.

² Waterborne transit emissions were sourced from the 2012 RTP/SCS EIR/EIS and converted to lbs/day assuming ferry operations would occur for a 122-day period between June 1 and September 30 each year.

³ Emission modeling for the North Shore Water Taxi Project Phase 2035 was completed using Harbor Craft, Dredge and Barge Emission Factor Calculator.

See Appendix E for EMFAC results for Harbor Craft, Dredge and Barge Emission Factor Calculator results.

TRPA’s significance criteria for ozone and PM₁₀ are based on achieving concentration-based standards for these pollutants. To evaluate how a project or plan would affect regional attainment of concentration-based ambient air quality standards, local air districts frequently rely on mass emission-based significance criteria. However, TRPA has not adopted mass emission-based standards for projects or plans. For example, Placer County APCD considers a project that would generate emissions less than 55 pounds per day of ROG or NO_x, or 82 pounds per day of PM₁₀ to not result a cumulatively considerable net increase of ozone and PM₁₀. In addition, El Dorado County AQMD also considers a project that would generate emissions less than 82 pounds per day of ROG or NO_x to not result a cumulatively considerable net increase of ozone and PM₁₀. These mass emission thresholds of significance are tied to Placer County APCD and El Dorado County AQMD air quality attainment planning efforts for the NAAQS and CAAQS, which are as stringent as TRPA threshold standards for ozone and PM₁₀. Thus, it is appropriate to use Placer County APCD and El Dorado County AQMD significance criteria to evaluate whether emissions from the 2020 RTP/SCS would exceed TRPA threshold standards. As shown in Table 5, criteria pollutant emissions would not exceed Placer County APCD and El Dorado County AQMD thresholds, which have been established for ROG, NO_x, and PM₁₀ emissions. Therefore, operational emissions associated with the 2020 RTP/SCS would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under applicable federal or state air quality standards, and impacts would be less than significant, similar to those identified in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IEC/IS. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would adhere to local air district standards, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Exposure of sensitive receptors to elevated localized concentrations of CO or TAC emissions could result in adverse health impacts. Impacts related to each of these pollutants are discussed in the following subsections.

CO Impacts

With respect to localized CO impacts, the Transportation Project-Level Carbon Monoxide Protocol (Garza et al. 1997) states that signalized intersections that operate at an unacceptable level of service (LOS) represent a potential for a CO violation, also known as a “hot spot.” Thus, an analysis of CO concentrations is typically recommended for receptors located near signalized intersections that are projected to operate at LOS E or F.

Consistent with the approach of the 2012 RTP/SCS EIR/EIS and the 2017 RTP/SCS IS/IEC, screening criteria are used to evaluate the potential for localized CO impacts in the event that signalized intersections are projected to operate at LOS E or F. Because TRPA, Placer County APCD, and El Dorado County AQMD have not adopted specific thresholds for evaluating the potential for local CO hotspots, this analysis utilizes the Bay Area Air Quality Management District (BAAQMD) screening criteria. Adjusting for the more stringent 8-hour CO standards for the Lake Tahoe area (6 ppm vs. 9.0 ppm [i.e., a 33 percent decrease]), it is appropriate to use the adjusted-BAAQMD screening method for screening of CO impacts for intersections in the LTAB. The applicable screening criteria are as follows (BAAQMD 2017):

- The project would not result in an affected intersection experiencing more than 29,333 vehicles per hour (vph) (reduced by 33 percent from 44,000 vph for the Bay Area)
- The project would not result in an affected intersection experiencing more than 16,000 vph where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway) (reduced by 33 percent from 24,000 vph for the Bay Area)

Under the 2020 RTP/SCS and according to the traffic analysis prepared by Kittleson and Associates (2020), all affected intersections would operate at LOS D or better by 2045. In addition, although several roadway segments would operate at LOS E or F by 2045, none of studied roadway segments would experience peak hour volumes greater than 4,400 vph. Therefore, the 2020 RTP/SCS would not expose sensitive receptors to substantial CO emissions, and impacts would be less than significant, similar to those identified in the 2012 RTP/SCS EIR/EIS and the 2017 RTP/SCS IEC/IS. As a result, because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would meet screening criteria standards for CO, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

TAC Impacts

The 2020 RTP/SCS would implement VMT-reducing projects and programs that are designed to reduce associated air pollutant emissions by promoting more efficient travel patterns, facilitating the use of active transportation, and enhancing and expanding transit service. The construction and operation of projects would comply with federal and state regulations, the TRPA Code of Ordinances, and other applicable rules including the TRPA’s Best Construction Practices Policy (Mitigation Measure 3.4-2 from the 2012 RTP/SCS EIR/EIS). Projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS and would result in TAC impacts similar to those under the 2012 RTP/SCS and the 2017 RTP/SCS. In addition, implementation of Mitigation Measure 3.4-5 from the 2012 RTP/SCS EIR/EIS would continue to be required for the 2020 RTP/SCS. Overall, substantial and adverse impacts from TACs would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS

and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS and would not include any major sources of odors because the project types are not those types of facilities known to produce odors such as landfills or wastewater treatment facilities. In addition, no substantial, existing odor sources are in the LTAB. Odors associated with diesel exhaust from the use of on-site construction equipment would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. New bus fleets proposed under the 2020 RTP/SCS will be either electric or hydrogen fuel, reducing odors from diesel fuel use in the Plan Area. Finally, implementation of the 2020 RTP/SCS does not include the siting of new sensitive receptors. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would adhere to local air district standards, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 2 – Air Quality

- a. Will the proposal result in substantial air pollutant emissions?*

The 2020 RTP/SCS would implement VMT-reducing projects and programs that are designed to reduce associated air pollutant emissions by promoting more efficient travel patterns, facilitating the use of active transportation, and enhancing and expanding transit service. The construction and operation of projects would comply with federal and state regulations, the TRPA Code of Ordinances, and other applicable rules including the TRPA’s Best Construction Practices Policy (Mitigation Measure 3.4-2 from the 2012 RTP/SCS EIR/EIS). As discussed under CEQA item “b,” construction and operational emissions associated with the 2020 RTP/SCS would not exceed Placer County APCD or El Dorado County AQMD thresholds and would not, therefore, result in substantial air pollutant emissions in either California or Nevada. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO WITH MITIGATION

b. Will the proposal result in deterioration of ambient (existing) air quality?

The 2017 RTP/SCS IS/IEC determined that the 2017 RTP/SCS program of projects were not of sufficient size to significantly alter air quality of the local project area or the Lake Tahoe Region. The 2020 RTP/SCS proposes projects of similar scope and size to those included in the 2017 RTP/SCS. Thus, implementation of projects included in the 2020 RTP/SCS would not result in the alteration of air movement, moisture, temperature, or other ambient air quality factors. Potential changes to the climate because of GHG emissions are evaluated in Section 8, *Greenhouse Gas Emissions*. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

c. Will the proposal result in the creation of objectionable odors?

As discussed under CEQA item “d,” projects included in the 2020 RTP/SCS would not include any major sources of odors and would not include the siting of new sensitive receptors near existing odor sources. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

f. Will the proposal result in increased use of diesel fuels?

The 2017 RTP/SCS IS/IEC concluded that the anticipated increase in diesel fuel consumption would not be sufficient to result in significant air quality impacts. The 2020 RTP/SCS proposes projects of similar scope and size to those included in the 2017 RTP/SCS. As discussed under CEQA items “b” and “c,” these activities would not result in significant air quality impacts, similar to the conclusions of the 2017 RTP/SCS IEC/IS. In addition, new bus fleets proposed under the 2020 RTP/SCS will be either electric or hydrogen fuel, reducing diesel fuel use in the Plan Area. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2017 RTP/SCS IS/IEC.

NO

This page intentionally left blank.

4 Biological Resources

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	2012 RTP/SCS EIR/EIS Impact 3.10-4	No	No	No	Yes
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	2012 RTP/SCS EIR/EIS Impact 3.10-1	No	No	No	Yes
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	2012 RTP/SCS EIR/EIS Impact 3.10-1	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	2012 RTP/SCS EIR/EIS Impacts 3.10-3, 3.10-4	No	No	No	Yes
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	2012 RTP/SCS EIR/EIS Impacts 3.10-2	No	No	No	Yes
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	2012 RTP/SCS EIR/EIS Section 5.1.2	No	No	No	N/A

TRPA Environmental Checklist: Section 4 – Vegetation

Will the proposal result in:

a. Removal of native vegetation in excess of the area utilized for the actual development permitted by the land capability/IPES system?	2012 RTP/SCS EIR/EIS Impact 3.7-4	No	No	No	N/A
b. Removal of riparian vegetation or other vegetation associated with critical wildlife habitat, either through direct removal or indirect lowering of the groundwater table?	2012 RTP/SCS EIR/EIS Impact 3.10-1	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
c. Introduction of new vegetation that will require excessive fertilizer or water, or will provide a barrier to the normal replenishment of existing species?	2012 RTP/SCS EIR/EIS Section 5.1.2	No	No	No	N/A
d. Change in the diversity or distribution of species, or number of any species of plants (including trees, shrubs, grass, crops, micro flora and aquatic plants)?	2012 RTP/SCS EIR/EIS Impacts 3.10-3, 3.10-4	No	No	No	Yes
e. Reduction of the numbers of any unique, rare or endangered species of plants?	2012 RTP/SCS EIR/EIS Impact 3.10-4	No	No	No	Yes
f. Removal of stream bank and/or backshore vegetation, including woody vegetation such as willows?	2012 RTP/SCS EIR/EIS Impacts 3.10-2, 3.10-3	No	No	No	Yes
g. Removal of any native live, dead or dying trees 30 inches or greater in diameter at breast height (dbh) within TRPA's Conservation or Recreation land use classifications?	2012 RTP/SCS EIR/EIS Impact 3.10-2	No	No	No	Yes
h. A change in the natural functioning of an old growth ecosystem?	2012 RTP/SCS EIR/EIS Impact 3.10-2	No	No	No	Yes

Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
----------------------------	---	---	--	---

TRPA Environmental Checklist: Section 5 – Wildlife

Will the proposal result in:

a. Change in the diversity or distribution of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects, mammals, amphibians or microfauna)?	2012 RTP/SCS EIR/EIS Impacts 3.10-3, 3.10-4	No	No	No	Yes
b. Reduction of the number of any unique, rare or endangered species of animals?	2012 RTP/SCS EIR/EIS Impact 3.10-4	No	No	No	Yes
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	2012 RTP/SCS EIR/EIS Impacts 3.10-3, 3.10-4	No	No	No	Yes
d. Deterioration of existing fish or wildlife habitat quantity or quality?	2012 RTP/SCS EIR/EIS Impacts 3.10-3, 3.10-4	No	No	No	Yes

Discussion

Projects that are new for the 2020 RTP/SCS and may impact biological resources include, but are not limited to, the North Shore Water Taxi Project, the Tahoe City Lakeside Trail Missing Link, Dollar Creek and South Tahoe Greenway shared use trails, segments of the Nevada Stateline to Stateline Bikeway, the Pope Beach Bike Path, and the Route 89 Class I and Lake Side Phase 2C bike trails. These projects, and other similar active transportation and development projects, would introduce new construction and ground disturbance to previously undisturbed or vegetated areas and thus have the potential to impact biological resources. Other projects include safety improvements and complete streets project improvements such as additions of sidewalks along U.S. Highway 50 from Kingsbury Grade to Lake Parkway as well as rehabilitation of roads, bike, and pedestrian facilities generally within existing urbanized areas and road right of ways. Design and development of these

projects would require site specific environmental analysis conducted by the local jurisdictions, USFS or Caltrans. Projects would also be subject to local jurisdiction biological resources standards including tree protection ordinances as well as state and federal regulations.

Regulatory Framework

TRPA Thresholds

Changes to the environmental setting that have occurred since preparation of the 2012 RTP/SCS EIR/EIS have been documented in the 2015 Threshold Evaluation (TRPA 2016). Vegetation and wildlife threshold standards have remained largely unchanged from 2017 to 2020. Some vegetation communities continue to be in non-attainment, meaning they do not meet applicable target standards for TRPA adopted environmental thresholds. Those include the common vegetation communities of meadow and wetland, deciduous riparian, yellow pine forest, red fir forest as well as some more rare plant communities.

TRPA Code of Ordinances

All projects under the 2020 RTP/SCS would be required to comply with Chapter 61 of the TRPA Code of Ordinances which includes specific standards regarding vegetation, wildlife, and fisheries. Chapter 61, Vegetation and Forest Health, Section 61.3, Vegetation Protection and Management, provides for the protection of stream environmental zone (SEZ) vegetation, other common vegetation, uncommon vegetation, and sensitive plants in SEZs.

Tree removal is subject to review and approval by TRPA. Provisions for tree removal are provided in the following chapters and sections of Chapter 61, Vegetation and Forest Health; Section 61.1, Tree Removal; Section 61.3.6, Sensitive and Uncommon Plant Protection and Fire Hazard Reduction; Section 61.4, Revegetation; Chapter 36, Design Standards; Chapter 33, Grading and Construction; and Section 33.6, Vegetation Protection During Construction.

Chapter 62 of the TRPA Code sets standards for preserving and managing wildlife habitats, with special emphasis on protecting or increasing habitats of special significance, such as deciduous trees, wetlands, meadows, and riparian areas. Specific habitats that are protected include riparian areas, wetlands, and SEZs; wildlife movement and migration corridors; important habitat for any species of concern; critical habitat necessary for the survival of any species; nesting habitat for raptors and waterfowl; fawning habitat for deer; and snags and coarse woody debris. In addition, TRPA special-interest species (also referred to as “threshold species”), which are locally important because of rarity or other public interest, and species listed under the federal Endangered Species Act (ESA) or California ESA are protected from habitat disturbance by conflicting land uses. TRPA special-interest wildlife species are northern goshawk (*Accipiter gentilis*), osprey (*Pandion haliaetus*), bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), peregrine falcon (*Falco peregrinus anatum*), mule deer (*Odocoileus hemionus*), and waterfowl species.

Chapter 63, Fish Resources, of the TRPA Code includes provisions for the protection of fish habitat, enhancement of degraded habitat, and prevention of the introduction and spread of aquatic invasive species. Section 63.4 of the TRPA Code, “Aquatic Invasive Species,” states that “Aquatic Invasive Species (AIS) pose a serious threat to the waters of the Lake Tahoe region and can have a disastrous impact to the ecology and economy of the Tahoe region.”

Special Status Species

The California Department of Fish and Wildlife’s (CDFW) *California Natural Diversity Database* (CNDDDB), California Native Plant Society (CNPS) *Online Inventory of Rare and Endangered Plants*, TRPA GIS data, and USFS GIS data were used as the primary sources to identify and map reported occurrences of special-status species and sensitive natural communities within the Plan Area for the 2012 RTP/SCS EIS/EIR. These databases as well as the U.S. Fish and Wildlife Service’s (USFWS) *Information for Planning and Consultation* were consulted in June of 2020 to identify special-status species recorded since the certification of the 2012 RTP/SCS EIS/EIR and adoption of the 2017 RTP/SCS IS/IEC.

CEQA Environmental Checklist

- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the ESA; those considered “Species of Concern” by the USFWS; those listed or proposed for listing as Rare, Threatened, or Endangered by the CDFW under the California ESA; animals designated as “Species of Special Concern” by the CDFW; and CDFW Special Plants, specifically those occurring on lists 1B and 2 of the California Native Plant Society Inventory of Rare and Endangered Vascular Plants of California.

The 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC identified 41 special-status plant species and 40 special-status animal species, known or with potential to occur in the Plan Area (Tables 3.10-4 and 3.10-5 of the 2012 RTP/SCS EIR/EIS). Based on the database search completed for the 2020 RTP/SCS, an additional 11 special-status plant and five special-status animal species were documented as having potential to occur in the Plan Area since 2012 and are shown in Table 6 and Table 7, respectively (CDFW 2020a; 2020b; CNPS 2020; USFWS 2020a).

Table 6 Special Status Plant Species Known to Occur or with Potential to Occur in the Vicinity of the Plan Area since 2012

Scientific Name Common Name	Status Fed/State Global Rank/State Rank CRPR	Habitat Requirements
<i>Artemisia tripartite ssp. tripartita</i> Threetip sagebrush	∟_ G5T4T5/S2 2B.3	Upper montane coniferous forest. Openings in the forest. Rocky, volcanic soils. 2285-2440 m. perennial shrub. Blooms Aug
<i>Astragalus austiniiae</i> Austin’s astragalus	∟_ G2G3/S2S3 1B.3	Alpine boulder and rock field, subalpine coniferous forest. Rocky. 2440-2965 m. perennial herb. Blooms (May) Jul-Sep
<i>Boechnera tularensis</i> Tulare rockcress	∟_ G3/S3 1B.3	Subalpine coniferous forest, upper montane coniferous forest. Rocky slopes. 1825-3355 m. perennial herb. Blooms (May) Jun-Jul (Aug)
<i>Brasenia schreberi</i> watershield	∟_ G5/S3 2B.3	Freshwater marshes and swamps. Aquatic from water bodies both natural and artificial in California. 30-2200 m. perennial rhizomatous herb (aquatic). Blooms Jun-Sep

Scientific Name Common Name	Status Fed/State Global Rank/State Rank CRPR	Habitat Requirements
<i>Carex hystericina</i> Porcupine sedge	∟_ G5/S2 2B.1	Marshes and swamps. Wet places, such as stream edges. 605-960 m. perennial rhizomatous herb. Blooms May-Jun
<i>Chaenactis douglasii</i> var. <i>alpine</i> Alpine dusty maidens	∟_ G5T5/S2 2B.3	Alpine boulder and rock field. Open, subalpine to alpine gravel and crevices; granitic substrate. 2362-3355 m. perennial herb. Blooms Jul-Sep
<i>Claytonia megarhiza</i> Fell-fields claytonia	∟_ G5/S2 2B.3	Alpine boulder and rock field, subalpine coniferous forest. In the crevices between rocks, rocky or gravelly soil. 2600-3335 m. perennial herb. Blooms Jul-Sep
<i>Potamogeton epihydrus</i> Nuttall's ribbon-leaved pondweed	∟_ G5/S2S3 2B.2	Marshes and swamps. Shallow water, ponds, lakes, streams, irrigation ditches. 295-2640 m. perennial rhizomatous herb (aquatic). Blooms (Jun)Jul-Sep
<i>Potamogeton robbinsii</i> Robbin's pondweed	∟_ G5/S3 2B.3	Marshes and swamps. Deep water, lakes. 1525-3495 m. perennial rhizomatous herb (aquatic). Blooms Jul-Aug
<i>Rhamnus alnifolia</i> Alder buckthorn	∟_ G5/S3 2B.2	Meadows and seeps, lower montane coniferous forest, upper montane coniferous forest, riparian scrub. Mesic sites. 1460-2135 m. perennial deciduous shrub. Blooms May-Jul
<i>Utricularia intermedia</i> Flat-leaved bladderwort	∟_ G5/S3 2B.2	Bogs and fens, meadows and seeps, marshes and swamps, vernal pools. Mesic meadows, lake margins, marshes, fens. 670-2655 m. perennial stoloniferous herb (carnivorous) (aquatic). Blooms Jul-Aug

FT = Federally Threatened SE = State Endangered
 FC = Federal Candidate Species ST = State Threatened
 FE = Federally Endangered SR = State Rare
 SC = State Candidate Species

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDDB RareFind5.

CRPR (California Rare Plant Rank)

1A = Presumed Extinct in California
 1B = Rare, Threatened, or Endangered in California and elsewhere
 2 = Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension

.1=Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
 .2=Fairly endangered in California (20-80% occurrences threatened)
 .3=Not very endangered in California (<20% of occurrences threatened)

Source: CNDDDB (CDFW 2020a; 2020b); CRPR (CNPS 2020); IPaC (USFWS 2020a)

Table 7 Special Status Animal Species Known to Occur or with Potential to Occur in the Vicinity of the Plan Area since 2012

Scientific Name Common Name	Status Fed/State Global Rank/State Rank CDFW	Habitat Requirements
Invertebrates		
<i>Bombus occidentalis</i> Western bumble bee	_/_SC G4T1/S1	Once common and widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.
Amphibians		
<i>Ambystoma macrodactylum sigillatum</i> Southern long-toed salamander	_/_ G5T4/S3 SSC	High elevation meadows and lakes in the Sierra Nevada, Cascade, and Klamath mountains. Aquatic larvae occur in ponds and lakes. Outside of breeding season adults are terrestrial and associated with underground burrows of mammals and moist areas under logs and rocks.
Fish		
<i>Xatostomus platyrhynchus</i> Mountain sucker	_/_ G5/S3 SSC	Restricted to the Lahontan drainage system and the north fork of the Feather River. Generally, occupy pool-like habitats. Abundance greatest in areas with dense cover.
<i>Prosopium williamsoni</i> Mountain whitefish	_/_ G5/S3 SSC	Current range in California includes the Lower, Little, and Upper Truckee, East Fork Carson, and East and West Walker river drainages on the east side of the Sierra Nevada, and perhaps the West Fork Carson River as well. They can also be found in natural lakes, including Tahoe, Independence, Cascade, and Fallen Leaf lakes. Frequently shoal in groups of 5 to 20 fish close to the bottom of streams and lakes.
Birds		
<i>Accipiter striatus</i> Sharp-shinned hawk	_/_ G5/S4 WL	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.
FT = Federally Threatened	SE = State Endangered	
FC = Federal Candidate Species	ST = State Threatened	
FE = Federally Endangered	SR = State Rare	
FS = Federally Sensitive	SC = State Candidate Species	
G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDDB RareFind 5.		
SSC = CDFW Species of Special Concern FP = Fully Protected		
Sources: CNDDDB (CDFW 2020a,2020b); IPaC (USFWS 2020a)		

Critical habitat is a USFWS-designated geographic area that is considered essential for the conservation of a threatened or endangered species that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species, but that will be needed for its recovery. Prior to the certification of the 2012 RTP/SCS EIR/EIS no designated critical habitat occurred in the Tahoe Basin. However, in 2016 final critical habitat was designated for the Sierra Nevada yellow-legged frog (*Rana sierrae*) and now overlaps with the southwest portion of the Plan Area (USFWS 2016, 2020b).

Similar to the 2012 and 2017 RTP/SCS, most of the special-status species known or with potential to occur in the Plan Area are not expected to occur in most of the areas impacted by proposed transportation projects or be affected by implementation of the 2020 RTP/SCS. This is because of

the existing levels of disturbance, habitat modifications, and marginal habitat conditions for sensitive species, or lack of recent occurrence records in existing or likely future development areas. However, development projects outside of community centers (e.g., bike and shared use trails) could affect special-status wildlife and plant species. For example, bike trail projects that would traverse more remote areas (e.g., Tahoe City Lakeside Trail Missing Link, Dollar Creek and South Tahoe Greenway shared use trails) could encroach into buffer zones around TRPA special interest species, including northern goshawk or osprey, and adversely affect other special-status plant and animal species.

If special-status plants are present in affected areas, construction activities have the potential to result in vegetation removal or trampling, deposition of dust or debris, soil compaction, or disturbance to root systems that could affect their survival. Construction actions could temporarily disturb foraging, movement, and reproductive activities of special-status wildlife species that may occur in project areas. Potentially disturbing activities could include vegetation removal, noise, dust generation, or other project-related components. Construction could also result in noise, dust, and other disturbances to special-status animals in or near individual project sites, resulting in potential site abandonment and mortality to young. Long-term operation and use of proposed trails may disturb or displace special-status wildlife species. At the project-review level, special-status plant and wildlife species with potential to be affected would be determined based on the species' distribution and known occurrences relative to the project area, the presence of suitable habitat for the species in or near the project area, and preconstruction surveys.

New and modified projects under the 2020 RTP/SCS could cause disturbance or displacement resulting in loss of individuals or disruptions to nesting attempts by special-status species and result in potentially significant impacts for species known to be present in the Plan Area. Mitigation Measure 3.10-4 provided in the 2012 RTP/SCS EIR/EIS for pre-construction surveys for special-status plant and animal species would require that special-status species with the potential to occur on individual project sites are accounted for and impacts are avoided, minimized, or compensated. Similar to the 2017 RTP/SCS IS/IEC mitigation would apply to any projects with the potential to adversely impact special-status species and would reduce impacts to a less-than-significant level.

Overall, substantial and adverse impacts to special-status species would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The hydrologic, topographic, and elevation gradients present in the Plan Area support a diverse mix of vegetation communities and wildlife habitats. For example, more than 50 vegetation types and 22 California Wildlife Habitat Relationships System (CWHR) habitat types are recognized in the Plan Area. Figure 6 and Figure 7 show the distribution of these habitat types in the Plan Area. Sensitive habitats in the Plan Area include a variety of wetland and riparian communities such as wet meadows, riparian zones along streams, marshes, seasonal wetlands, drainages, springs, fens, bogs, and deep-water plant communities of Lake Tahoe. TRPA designates most of these communities as

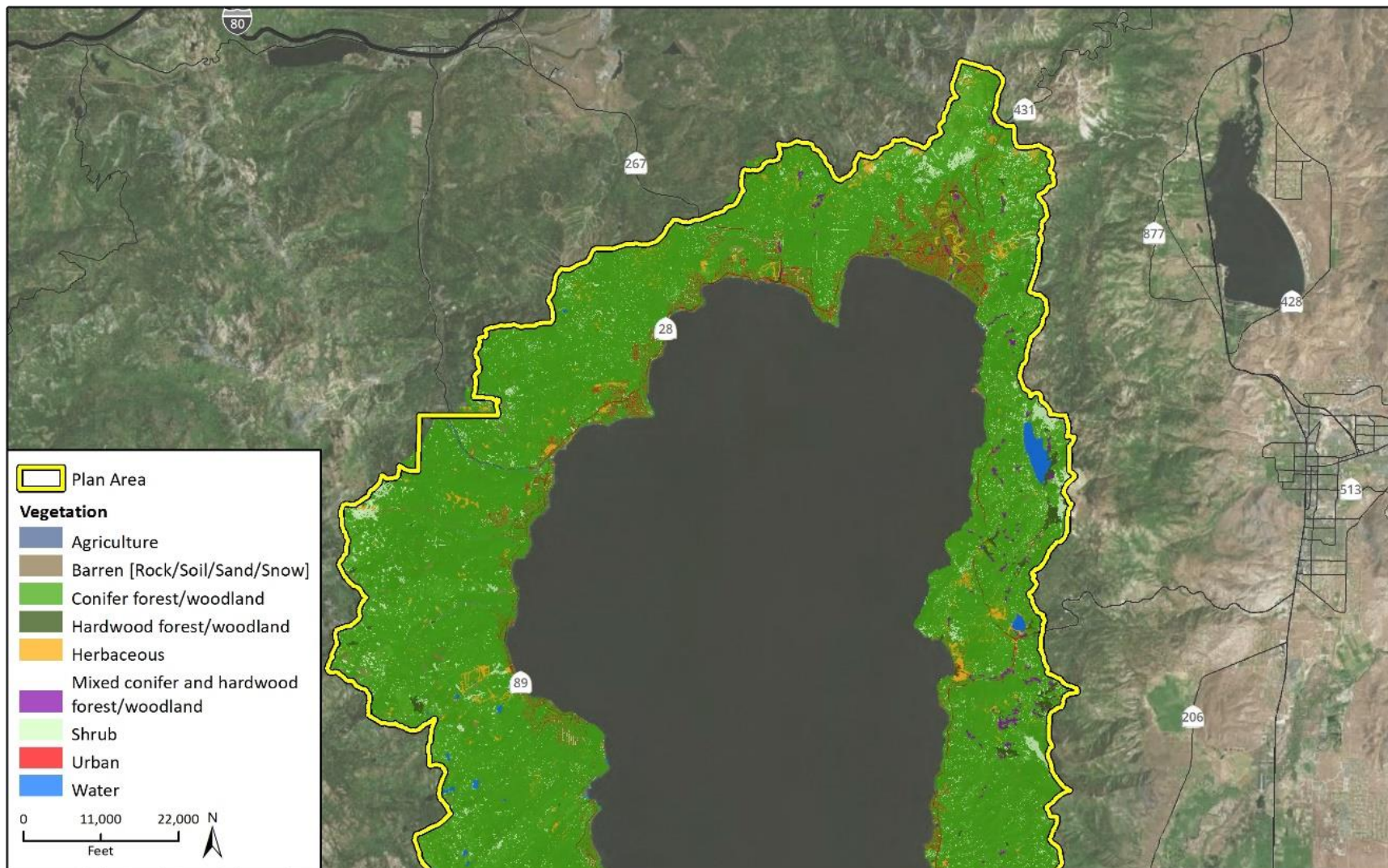
SEZs and habitats of special significance. Other sensitive habitats include late seral/old growth forest.

Sensitive natural communities or habitats are those of special concern to resource agencies or those that are afforded specific consideration, based on Section 404 of the Clean Water Act (CWA), the TRPA Code of Ordinances, Sections 1600 et seq. of the California Fish and Game Code, and other applicable regulations. Depending on specific locations of projects, development under the 2020 RTP/SCS could result in the removal or disturbance of sensitive natural communities including riparian habitats and protected wetlands. Most ground disturbances resulting from the construction of transportation facilities would occur within urban areas, existing transportation corridors, and existing subdivisions. Because ground disturbances would be limited mostly to these existing disturbed areas, potential impacts to sensitive habitats could be relatively minor. However, construction-related disturbances could occasionally occur in or otherwise directly or indirectly affect areas that may support sensitive habitats, particularly SEZs, outside of existing disturbed areas.

Most of the SEZ, wetland, and riparian habitats affected by implementation of the 2020 RTP/SCS would likely be considered jurisdictional by U.S. Army Corps of Engineers and, in California, the Lahontan Regional Water Quality Control Board (LRWQCB) under Section 404 of the federal CWA and the state's Porter-Cologne Act. Fill or reconfiguration of jurisdictional waters of the United States requires a permit from U.S. Army Corps of Engineers pursuant to Section 404 of the CWA. In addition, the deciduous riparian vegetation within most or all SEZs would likely be considered jurisdictional habitat by the U.S. Army Corps of Engineers and would need a permit and project-specific mitigation. On the California side of the Plan Area, CDFG has jurisdiction over activities affecting the bed and bank of drainages. Habitats consisting of deciduous trees, wetlands, and meadows (i.e., riparian, wetland, and meadow habitats) are designated by TRPA as habitats of special significance. The TRPA threshold standard for habitats of special significance is non-degradation while providing for opportunities to increase the acreage of these habitats (TRPA 2019d).

Similar to the 2012 and 2017 RTP/SCS, new development or redevelopment projects could result in the construction-related disturbance or removal of existing wildlife habitats. Vegetation types affected by projects in the 2020 RTP/SCS include: aspen, eastside pine, lacustrine, lodgepole pine, montane chaparral, montane riparian, perennial grassland, Sierran mixed conifer, wet meadow, and white fir. The potential for loss of riparian or sensitive habitats would be potentially significant. Mitigation Measure 3.10-1 provided in the 2012 RTP/SCS EIR/EIS requires vegetation protection and revegetation as well as conducting wetland delineations for projects in areas with sensitive or riparian habitats, such that appropriate individual permits and authorization as well as revegetation plans are in place. Mitigation would apply to new and modified projects proposed under the 2020 RTP/SCS.

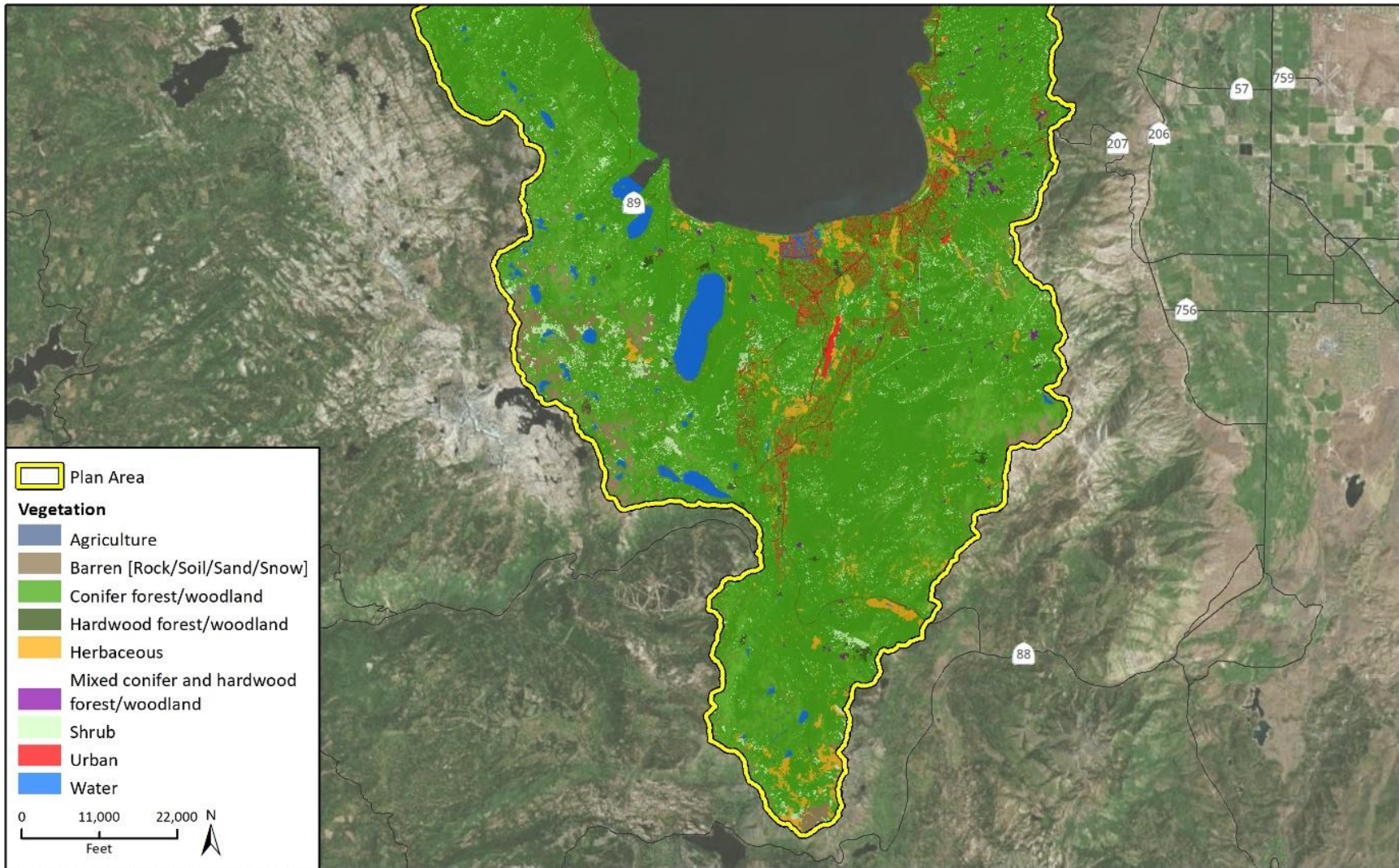
Figure 6 Vegetation Communities and Wildlife Habitats in the Northern Plan Area



Imagery provided by Microsoft Bing and its licensors © 2020.
California Department of Fish and Wildlife, CWHR, 2014.

Fig 1 Veg - Pg 1

Figure 7 Vegetation Communities and Wildlife Habitats in the Southern Plan Area



Imagery provided by Microsoft Bing and its licensors © 2020.
California Department of Fish and Wildlife, CWHR, 2014.

Fig 3 Veg - Pg 1

Prior to approving any project subject to environmental review requirements, TRPA would, in accordance with Chapter 4, *Required Findings*, of the TRPA Code or Ordinances, make written findings supported by substantial evidence in the record that the project is consistent with, and would not adversely affect implementation of the Regional Plan, Goals and Policies, plan maps, TRPA Code, and other plans and programs; and that it would not cause Environmental Threshold Carrying Capacities to be exceeded. Because of the mandatory nature of TRPA environmental review requirements, TRPA Code compliance, and permit approvals, it is reasonable to expect that existing procedures, performance standards, and environmental safeguards such as TRPA threshold standards, TRPA Code compliance requirements, federal/state/local regulations, and permit approvals would be effective in avoiding or mitigating potentially significant project-specific impacts, and/or that projects would be required to be modified so as to achieve such standards prior to approval. Substantial and adverse impacts to riparian and sensitive habitats would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Depending on specific locations of projects, development under the 2020 RTP/SCS could result in the removal or disturbance of potential jurisdictional wetlands. Refer to item “b” above for a discussion of protected wetlands. Substantial and adverse impacts to state or federally protected wetlands would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Aquatic Habitat

Lakes and streams are the two primary aquatic habitats that support fish in the Plan Area. Stream and lake fish habitats are protected by the TRPA Code of Ordinances and state regulations. TRPA’s existing policies and Code provisions address potential impacts to fisheries and aquatic habitats, which include aquatic wildlife corridors, through site specific environmental review. Therefore, new and modified projects in the 2020 RTP/SCS would require development and implementation of project-specific measures to minimize or avoid impacts to fisheries through the design process and would provide compensatory or other mitigation for any significant effects on fish habitat as a condition of project approval. Specifically, the TRPA Code of Ordinances requires protecting prime and other fish habitat and implementing the fish habitat provisions in Sections 63.3.1 and 63.3.2.

Per TRPA's Rules of Procedure, these sections require mitigation to avoid significant impacts to fisheries as needed as a condition of project approval. Depending on the type and magnitude of a significant impact to aquatic habitat, mitigation measures could include fish rescue/relocation, best management practices (BMP) specifically designed to protect aquatic habitats and species, enhance habitat, control and manage invasive species, and secure funding or otherwise contribute to aquatic habitat restoration projects.

Additionally, the Shorezone Subelement of the Conservation Element of the Goals and Policies requires TRPA to regulate the placement of new piers, buoys, and other structures in the nearshore and foreshore of Lake Tahoe to avoid degradation of fish habitats and other types of impacts. The Goals and Policies also require TRPA to conduct studies, as necessary, to determine potential impacts to fish habitats and apply the results of such studies, as well as previous studies on shoreline erosion and Shorezone scenic quality, when determining the number of, location of, and standards of construction for facilities in the nearshore and foreshore. Section 80.4 of the TRPA Code states that TRPA would not approve a project in the shorezone or lakezone unless TRPA finds that the project will not adversely affect fish spawning, onshore wildlife habitat, littoral processes, or backshore stability. Projects in the shorezone that could support waterborne transit would be subject to Chapter 84 of the TRPA Code of Ordinances.

Because the 2020 RTP/SCS would allow some level of new development, aquatic habitats could be affected by individual project construction activities associated with development and redevelopment near aquatic habitats. Construction could result in temporary increases in turbidity and downstream sedimentation, small amounts of fill placed in aquatic habitats, and the release and exposure of construction-related contaminants. The 2012 RTP/SCS EIR/EIS concluded that temporary impacts to stream or lake habitats could be potentially significant, because of potential shorezone construction disturbance required for Lake Tahoe Waterborne Transit Project facilities.

The 2020 RTP/SCS would include the North Shore Water Taxi Project, which would provide new waterborne transit access to provide companion service to the Crosslake Ferry service. Facilities developed to support waterborne transit would potentially impact aquatic habitats. Chapter 63.3, Fish Habitat Protection, of the TRPA Code of Ordinances includes protection for lake habitat such that projects and activities in the shorezone of lakes may be prohibited, limited, or otherwise regulated in areas determined by TRPA to be vulnerable or critical to the needs of fish. Section 63.3.1 requires that physical alteration of the substrate in areas of prime fish habitat be mitigated. Additionally, Chapters 80 through 85 of the TRPA Code of Ordinances provide development standards for structures and construction in the shorezone as well as permissible uses within the shorezone for the protection of aquatic and fish habitat.

Projects included in the 2020 RTP/SCS would be required to comply with the TRPA Code as well as Mitigation Measure 3.10-3, requiring individual projects to conduct preconstruction surveys and develop native fish capture and transportation plans would apply to projects under the 2020 RTP/SCS. Compliance with TRPA's existing policies and Code provisions, along with implementation of Mitigation Measure 3.10-3 would minimize or avoid impacts to fish and aquatic habitat. Substantial and adverse impacts to fish movement would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

Wildlife Movement Corridors

Similar to the 2012 RTP/SCS, the overall land use pattern and amount of new development proposed under the 2020 RTP/SCS would not create barriers to wildlife movement locally or regionally. Transportation and land use projects proposed in the 2020 RTP/SCS would allow continued wildlife movement because new projects would include active transportation, corridor improvements, operations and management, and technology projects. These types of projects would not add new roads, increase travel lanes, or otherwise expand roadway capacity that could result in more wildlife collisions. The 2020 RTP/SCS is not anticipated to affect wildlife movement in areas of existing paved and disturbed rights-of-way. Generally, wildlife can cross a pedestrian or bicycle path with relative ease, and the level and speed of path use is not a substantial overall deterrent to wildlife movement across the proposed path. Adverse effects on the movement of terrestrial species would be temporary and limited to specific activities including installation of temporary fencing, night lighting, construction noise, construction of active transportation projects, and the presence of construction personnel during working hours.

Under implementation of the 2020 RTP/SCS distribution of intensively developed land, and amount and connectivity of open space regionally would not change substantially relative to critical movement requirements of native wildlife. Therefore, implementation of the 2020 RTP/SCS would not create new barriers to wildlife movement or substantially affect any known important wildlife corridors locally or regionally. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Similar to the 2012 and 2017 RTP/SCS, construction of development projects under the 2020 RTP/SCS may require the removal of native trees. Development would primarily be concentrated in existing community centers which are largely developed or previously disturbed and would likely require less tree removal than new uses outside of urban areas. Shared use and bike trails proposed in the 2020 RTP/SCS would likely involve some disturbance to native trees. However, final trail design may be designed to avoid or retain trees in future alignments in accordance with TRPA standards. Any proposed transportation or land use project that proposes tree trimming or removal would require permits and compliance with TRPA's Code of Ordinances Section 33.6, *Vegetation Protection During Construction*.

New and/or modified projects in the 2020 RTP/SCS, such as proposed bike and pedestrian trails, that traverse remote areas could result in substantial tree removal. Regardless of the magnitude or biological effects of tree removal, native trees are protected in the Plan Area, particularly those greater than 24- and 30-inches diameter at breast height (dbh) in eastside and westside forest types, respectively, or in SEZs. Specific provisions for tree removal in the Plan Area are provided in the TRPA Code of Ordinances (Chapter 61, and Chapters 36, 33, 62) and all tree removal for trees greater than 14 inches dbh requires review and approval by TRPA.

A harvest or tree removal plan is required by TRPA where implementation of a project would cause “substantial” tree removal. “Substantial” tree removal is defined in Chapter 61 of the TRPA Code as: 1) removal of more than 100 live trees 14 inches dbh or larger on project areas of three acres or more; or 2) tree removal that, as determined by TRPA after a joint inspection with appropriate state or federal forestry staff, does not meet the minimum acceptable stocking standards set forth in Chapter 61. For the purpose of late seral/old growth ecosystem protection, the TRPA Code specifies that no tree greater than or equal to 24 and 30 inches dbh in eastside and westside forest types, respectively, will be cut. However, the TRPA Code provides an exception for private landowners by allowing for a limited forest plan to be prepared if 10 percent or less of the trees greater than or equal to 24 inches dbh in eastside forest types within a project area are proposed to be cut within the life of the plan.

TRPA’s existing policies and Code provisions address tree removal through site specific environmental review and would require development and implementation of project-specific measures to minimize or avoid impacts through the design and permitting process, and would provide compensatory or other mitigation for any significant effects as a condition of project approval. Specifically, the TRPA Goals and Polices and Code of Ordinances includes provisions for limiting tree removal and protecting late seral/old growth forests; and TRPA’s Rules of Procedure require mitigation for any significant impact as a condition of project approval. Additionally, TRPA cannot approve projects that would cause a significant adverse effect on the late seral/old growth ecosystem threshold without appropriate mitigation.

Removal of native trees as part of specific projects implemented under the 2020 RTP/SCS would be a potentially significant impact. As such, Mitigation Measure 3.10-2 of the 2012 RTP/SCS requiring individual projects to minimize tree removal and develop a tree removal and management plan would apply to projects under the 2020 RTP/SCS. Implementation of Mitigation Measure 3.10-2 would ensure compliance with existing TRPA regulations and policies to identify potentially significant tree removal, minimize or avoid those impacts through the design and permitting process, and provide mitigation for any significant effects.

Overall, substantial and adverse impacts to tree removal would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- f. *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

This impact area was included in the 2012 RTP/SCS EIR/EIS Section 5.1 *Effects Found Not To Be Significant* as there are no adopted habitat conservation plans, natural community conservation plans in the planning area. No new plans have been adopted since 2017.

Pursuant to 23 CFR 450.324(g)(1&2), each MPO, when developing content for new and updated transportation plans, must consider consistency with State conservation plans as well as inventories of natural resources. The State Wildlife Action Plan (SWAP; 2015) identifies conservation actions, several of which are beyond CDFW’s jurisdiction, and as such CDFW collaborated with partners in

different sectors to create companion plans to achieve the SWAP's goals. The SWAP 2015 Transportation Companion Plan presents shared priorities for achieving the statewide goals including maintaining and increasing abundance and richness of native species, enhancing ecosystem conditions, and maintaining and improving ecosystem function. The 2020 RTP/SCS incorporates high-level conservation priorities consistent with these goals through proposed policies, projects, and compliance with existing regulations.

Specifically, the TRPA Goals and Policies and TRPA's Code of Ordinances require protection of habitats and vegetation through establishment of setbacks, BMPs, or other measures and protection of late seral/old growth forests and other sensitive habitats. These regulations and procedures address potential construction-related impacts to sensitive habitats and the distribution and abundance of species through site-specific environmental review; require development and implementation of project-specific measures to minimize or avoid impacts through the design and permitting process; and require compensatory or other mitigation for any significant effects as a condition of project approval and permitting. New transportation and land use projects proposed in the 2020 RTP/SCS would be required to comply with the TRPA Code of Ordinances and would therefore be consistent with the SWAP. In addition, new transportation and land use projects proposed in the 2020 RTP/SCS would allow continued wildlife movement because new projects would include active transportation, corridor improvements, operations and management, and technology projects. As such, implementation of the 2020 RTP/SCS would be consistent with the SWAP and no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 4 – Vegetation

- a. *Will the proposal result in removal of native vegetation in excess of the area utilized for the actual development permitted by the land capability/IPES systems?*

Similar to the 2012 and 2017 RTP/SCS, transportation and land use projects proposed in the 2020 RTP/SCS would require some vegetation removal. As discussed above under CEQA item "e," projects would be required to comply with vegetation removal standards included in the TRPA Code of Ordinances, Goals and Policies, and Rules of Procedure, as well as development and implementation of revegetation plans required by Mitigation Measure 3.10-1 of the 2012 RTP/SCS EIR/EIS. Additionally, projects included in the 2020 RTP/SCS would be subject to the same Individual Parcel Evaluation System (IPES) standards which limits the amount of development permitted in sensitive areas while retiring some sensitive parcels altogether. Overall, substantial and adverse impacts to native vegetation would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- b. *Will the proposal result in removal of riparian vegetation or other vegetation associated with critical wildlife habitat, either through direct removal or indirect lowering of the groundwater table?*

As described in CEQA items “b” and “c,” the 2012 RTP/SCS EIR/EIS concluded that construction of approved development would have a less-than-significant with mitigation incorporated impact to riparian habitat, other sensitive natural communities, and protected wetlands. Mitigation Measure 3.10-1 provided in the 2012 RTP/SCS EIR/EIS requires vegetation protection and revegetation as well as conducting wetland delineations for projects in areas with sensitive or riparian habitats, such that appropriate individual permits and authorization as well as revegetation plans are in place. Mitigation would apply to new and modified projects proposed under the 2020 RTP/SCS. Overall, substantial and adverse impacts to native vegetation would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- c. *Will the proposal result in an introduction of new vegetation that will require excessive fertilizer or water, or will provide a barrier to the normal replenishment of existing species?*

Similar to the 2012 and 2017 RTP/SCS, projects included in the 2020 RTP/SCS would not require excess fertilizer or water and would not introduce vegetation that would provide a barrier to the normal replenishment of existing species. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and general location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- d. *Will the proposal result in a change in the diversity or distribution of species, or number of any species of plants (including trees, shrubs, grass, crops, micro flora and aquatic plants)?*

Transportation and land use projects proposed in the 2020 RTP/SCS could result in short-term impacts including vegetation removal or disturbance that could temporarily affect sensitive habitats or the distribution and diversity of plant species. As discussed under CEQA item “b,” any new development or redevelopment project would be required to comply with existing TRPA, federal, and state regulations, permitting requirements and environmental review procedures that protect sensitive habitats. Specifically, the TRPA Goals and Policies and TRPA’s Code of Ordinances require protection of habitats and vegetation through establishment of setbacks, BMPs, or other measures and protection of late seral/old growth forests and other sensitive habitats. These regulations and procedures address potential construction-related impacts to sensitive habitats through site-specific environmental review; require development and implementation of project-specific measures to minimize or avoid impacts through the design and permitting process; and require compensatory or other mitigation for any significant effects as a condition of project approval and permitting.

Individual projects would be required to comply with Mitigation Measure 3.10-1 in the 2012 RTP/SCS EIR/EIS relating to vegetation protection and revegetation in areas with sensitive habitats.

Overall, substantial and adverse impacts to species distribution would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

e. Will the proposal result in a reduction of the numbers of any unique, rare or endangered species of plants?

As described above in CEQA item “a,” project-level planning and environmental analysis for individual transportation projects would identify potentially significant effects to special-status species of plants, minimize or avoid those impacts through the design process, and require mitigation for any significant effects as a condition of approval. Mitigation Measure 3.10-4 provided in the 2012 RTP/SCS EIR/EIS requiring pre-construction surveys for special-status plant and animal species would ensure that special-status species with the potential to occur on individual project sites are accounted for and impacts are avoided, minimized or compensated. Mitigation would apply to projects with the potential to adversely impact special-status species to reduce impacts to a less-than-significant level.

Overall, substantial and adverse impacts to special-status species would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

f. Will the proposal result in removal of stream bank and/or backshore vegetation, including woody vegetation such as willows?

Transportation and land use projects proposed in the 2020 RTP/SCS could result in short-term impacts during construction including vegetation removal or disturbance that could temporarily affect stream bank and/or backshore vegetation. Any new development or construction of projects would be required to comply with existing TRPA, federal, and state regulations and permitting requirements protecting sensitive habitats and vegetation including stream bank and backshore vegetation. As described under CEQA items “b” and “c” above, existing regulations and permitting requirements would minimize the loss of sensitive habitats during construction and provide habitat compensation for the loss of riparian, wetland, and other sensitive habitats through CWA Section 404, TRPA, and other permitting and review processes. This would ensure that proposed projects would not result in permanent removal of stream bank or backshore vegetation in the Plan Area.

Mitigation Measure 3.10-1 provided in the 2012 RTP/SCS EIR/EIS addresses vegetation protection and revegetation as well as conducting wetlands delineation would be applied to projects in areas with sensitive or riparian habitats, such that appropriate individual permits and authorization as well as revegetation plans are in place. Mitigation would apply to projects with the potential to adversely impact riparian or sensitive habitats to reduce impacts to a less-than-significant level. Substantial and adverse impacts to riparian and sensitive habitats would remain less than significant

with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- g. Will the proposal result in removal of any native live, dead or dying trees 30 inches or greater in diameter at breast height (dbh) within TRPA's Conservation or Recreation land use classifications?*

As described above under CEQA item "e," shared use and bike trails proposed in the 2020 RTP/SCS would likely involve some disturbance to native trees which may be 30 inches or greater in dbh. Any proposed transportation or land use project that proposes tree trimming or removal would require permits and compliance with TRPA's Code of Ordinances including Section 33.6, *Vegetation Protection During Construction*. Additionally, Mitigation Measure 3.10-2 of the 2012 RTP/SCS which requires individual projects to minimize tree removal and develop a tree removal and management plan would apply to projects under the 2020 RTP/SCS. Implementation of Mitigation Measure 3.10-2 would ensure compliance with existing TRPA regulations and policies to identify potentially significant tree removal, minimize or avoid those impacts through the design and permitting process, and provide mitigation for any significant effects.

Overall, substantial and adverse impacts to tree removal would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- h. Will the proposal result in a change in the natural functioning of an old growth ecosystem?*

As described above under CEQA item "e," project-level planning, environmental analysis, and compliance with existing TRPA regulations and policies would identify potentially significant tree removal; minimize or avoid those impacts through the design, siting, and permitting process; and provide mitigation for any significant effects as a condition of project approval and permitting. Specifically, the TRPA Goals and Policies and TRPA's Code of Ordinances require protection of old growth habitats through establishment of setbacks, BMPs, or other measures and protection of late seral/old growth forests and other sensitive habitats. Additionally, Mitigation Measure 3.10-2 of the 2012 RTP/SCS requiring individual projects to minimize tree removal in old growth ecosystems and develop a tree removal and management plan would apply to projects under the 2020 RTP/SCS. Implementation of Mitigation Measure 3.10-2 would ensure compliance with existing TRPA regulations and policies to identify potentially significant tree removal, minimize or avoid those impacts through the design and permitting process, and provide mitigation for any significant effects, including in old growth ecosystems.

Overall, substantial and adverse impacts to tree removal would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual

projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

Section 5 – Wildlife

- a. *Will the proposal result in a change in the diversity or distribution of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects, mammals, amphibians or microfauna)?*

As described above under CEQA items “a” and “d,” project-level planning and environmental analysis for individual projects would identify potentially significant effects to special-status wildlife species, minimize or avoid impacts to their habitats through the design process, and require mitigation for any significant effects as a condition of approval. Mitigation Measures 3.10-3 and 3.10-4 from the 2012 RTP/SCS EIR/EIS would require preconstruction surveys for special-status animal species including fish and implement avoidance and minimization measures. As such, substantial and adverse impacts to the diversity or distribution of species would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- b. *Will the proposal result in reduction of the number of any unique, rare or endangered species of animals?*

As described above under CEQA item “a,” project-level planning and environmental analysis for individual projects would identify potentially significant effects to special-status wildlife species, minimize or avoid those impacts through the design process, and require mitigation for any significant effects as a condition of approval. Mitigation Measure 3.10-4 provided in the 2012 RTP/SCS EIR/EIS requiring pre-construction surveys for special-status animal species would ensure that special-status species with the potential to occur on individual project sites are accounted for and impacts are avoided, minimized or compensated. Mitigation would apply to active transportation projects with the potential to adversely impact special-status species to reduce impacts to a less-than-significant level.

Overall, substantial and adverse impacts to special-status species would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- c. *Will the proposal result in an introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?*

As described above under CEQA item “d,” similar to the 2012 and 2017 RTP/SCS the overall land use pattern and amount of new development proposed under the 2020 RTP/SCS would not create barriers to wildlife movement locally or regionally. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- d. *Will the proposal result in a deterioration of existing fish or wildlife habitat quantity or quality?*

Please refer to CEQA items “a” and “b” for a discussion of wildlife habitat quantity and quality. As described under CEQA item “d” above, because the 2020 RTP/SCS would allow some level of new development, aquatic habitats could be affected by individual project construction activities associated with development and redevelopment near aquatic habitats. Construction could result in temporary increases in turbidity and downstream sedimentation, small amounts of fill placed in aquatic habitats, and the release and exposure of construction-related contaminants.

TRPA’s existing policies and Code provisions address potential impacts to fisheries and aquatic habitats through site-specific environmental review, require development and implementation of project-specific measures to minimize or avoid those impacts through the design process, and require compensatory or other mitigation for any significant effects on fish habitat as a condition of project approval. Specifically, provisions of the TRPA Code of Ordinances require protecting prime and other fish habitat and require mitigation to avoid significant impacts to fisheries if needed; TRPA’s Rules of Procedure require mitigation for any significant impact as a condition of project approval. The 2012 RTP/SCS EIR/EIS concluded that temporary impacts to stream or lake habitats could be potentially significant, because of potential shorezone construction disturbance required for Lake Tahoe Waterborne Transit Project facilities.

The 2020 RTP/SCS would include the North Shore Water Taxi Project, which would provide new waterborne transit access to provide companion service to the Crosslake Ferry service. Facilities developed to support waterborne transit would potentially impact aquatic habitats. As described above under CEQA item “d,” projects would be required to adhere to the development standards for structures and construction in the shorezone included in Chapters 80 through 85 of the TRPA Code. Additionally, Mitigation Measure 3.10-3, requiring individual projects to conduct preconstruction surveys and develop native fish capture and transportation plans would apply to projects under the 2020 RTP/SCS. Compliance with TRPA’s existing policies and Code provisions, along with implementation of Mitigation Measure 3.10-3 would minimize or avoid impacts to fish and aquatic habitat. Substantial and adverse impacts to fish movement would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

5 Cultural Resources

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	2012 RTP/SCS EIR/EIS Impact 3.15-1	No	No	No	Yes
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	2012 RTP/SCS EIR/EIS Impact 3.15-2	No	No	No	Yes
c. Disturb any human remains, including those interred outside of formal cemeteries?	2012 RTP/SCS EIR/EIS Impact 3.15-3	No	No	No	Yes

TRPA Environmental Checklist: Section 20 – Archaeological/Historical

Will the proposal result in:

a. Will the proposal result in an alteration of or adverse physical or aesthetic effect to a significant archaeological or historical site, structure, object or building?	2012 RTP/SCS EIR/EIS Impacts 3.15-1, 3.15-2	No	No	No	Yes
b. Is the proposed project located on a property with any known cultural, historical, and/or archaeological resources, including resources on TRPA or other regulatory official maps or records?	2012 RTP/SCS EIR/EIS Impacts 3.15-1, 3.15-2	No	No	No	Yes
c. Is the property associated with any historically	2012 RTP/SCS EIR/EIS	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
significant events and/or sites or persons?	Impact 3.15-1				
d. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	2012 RTP/SCS EIR/EIS Impact 3.15-5	No	No	No	Yes
e. Will the proposal restrict historic or pre-historic religious or sacred uses within the potential impact area?	2012 RTP/SCS EIR/EIS Impact 3.15-5	No	No	No	Yes

Discussion

Projects that are new for the 2020 RTP/SCS and may impact cultural resources by introducing new construction and ground-disturbing activities include, but are not limited to, the Tahoe City Lakeside Trail Missing Link, Dollar Creek and South Tahoe Greenway shared use trails, segments of the Nevada Stateline to Stateline Bikeway, the Pope Beach Bike Path, and the Route 89 Class I and Lake Side Phase 2C bike trails. Other projects include safety improvements and complete streets project improvements such as additions of sidewalks along U.S. Highway 50 from Kingsbury Grade to Lake Parkway, and rehabilitation of roads, bike and pedestrian facilities generally within existing urbanized areas and road right of ways. The project development and site design for all projects would include an inventory of historic resources and development of mitigation measures, if necessary, in consultation with the California and Nevada State Offices of Historic Preservation (SHPO).

The Regional Plan calls for the identification and preservation of sites of historic, cultural, and architectural significance for the region. TRPA recognizes "designated" and "determined eligible" historic and cultural resources across the Lake Tahoe Basin. The 1987 Regional Plan designated over 70 historic resources retaining a high level of historic or cultural integrity and significance for the Tahoe Region. Since that time, historic and cultural resources are assessed on a case-by-case basis. Prior to any project potentially impacting a historic or cultural resource over 50 years of age, an historic determination must be completed through TRPA. Additionally, the TRPA Code has identification and protection measures in place should an historic, pre-historic, or paleontological resource be discovered during project or grading activity.

All projects implemented under the 2020 RTP/SCS must comply with Chapter 67 of the TRPA Code of Ordinances which includes specific standards to protect significant cultural, historical, archaeological, and paleontological resources. Regulations include protection of such resources in project areas in which they are known or suspected. Chapter 67 also provides for consultation with state historical agencies and the Washoe Tribe. Additionally, Standard 33.3.7 in Chapter 33 (Grading

and Construction, Section 33.3, Grading Standards) addresses discovery of historical resources. Projects would also be subject to local jurisdiction cultural resource protection standards as well as state and federal regulations.

CEQA Environmental Checklist

- a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?*

TRPA maintains a Historic Resources Map and inventories that identify known archaeological, ethnographic, and historical sites. Geographic Information System (GIS) data is currently used by TRPA to map known resources. TRPA recognizes 112 sites of historical or archaeological significance, all of which were accounted for in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Cultural resources or archaeological sites are categorized by physical types as linear features and non-linear features. Linear features account for 33 of the recognized sites and non-linear features account for the remaining 79 sites. Linear features include roads, grades, passes, railroads, trestles, flumes, and trails. Non-linear features include houses, lodges, chapels, ranger stations, ranches, toll houses, sawmills, bridges, dairies, historic districts, logging/lumber camps, railroad tunnels, cabins, taverns, mansions/estates, piers, hotels, resorts, beaches, points, creek/river mouths, marshes, Native American function sites, springs, bays, and harbors. In addition to linear and non-linear features shown on the Historic Resources Map, many small sites are known around Lake Tahoe where a variety of artifacts have been discovered. Refer to TRPA Environmental Checklist item “b” below, for a discussion of archaeological resources in the Plan Area.

Similar to the 2012 and 2017 RTP/SCS, implementation of the 2020 RTP/SCS would authorize new development, which could occur on or adjacent to properties that contain known historical resources, be associated with historically significant events or individuals, or result in adverse physical or aesthetic effects to a significant historical site, structure, object, or building. Because the 2020 RTP/SCS would result in new construction over the planning period, disturbance, disruption, or destruction of historical resources could occur through implementation of specific projects.

Projects under the 2020 RTP/SCS would be required to comply with federal and state regulations and TRPA Code standards for the protection of historical resources and provide processes to avoid or minimize impacts to these resources. TRPA reviews the historic and cultural integrity of sites, structures, buildings, and objects 50 years or older. Specifically, TRPA Code Standard 67.3.2 requires that projects in areas with known or newly discovered sites of cultural or historic significance include a site survey performed by a qualified archaeologist prior to TRPA approval and TRPA Code Standard 67.3.4 prohibits grading, operation of equipment or other soil disturbance in areas where a designated historic resource is present, or could be damaged, except in accordance with a TRPA-approved resource protection plan. Additionally, upon discovery of a previously unknown site, object, district, structure or other resource, potentially meeting criteria designating it as a historic resource (as outline in TRPA Code Standard 67.6) TRPA would consult with the applicable SHPO. The SHPOs play an advisory role to TRPA during project review. TRPA staff request comment in such circumstances and often coordinate with the applicable SHPO on required study and mitigation measures. TRPA also consults with the applicable SHPO during the scoping process for all EISs and CEQA documents and submits these documents for comment during the public comment period.

At the federal level, Section 106 of the National Historic Preservation Act of 1966 guides cultural resources investigations by federal agencies and requires considerations of effects on properties that are listed in, or may be eligible in, the National Register of Historic Places. At the state level,

both California and Nevada have processes in place to protect and avoid historical resources. The California Register of Historic Resources identifies historic resources and indicates which properties are encouraged to be protected. On California state-owned lands, historical and archaeological resources are subject to the requirements of PRC Section 5024.5, which requires notification of the California SHPO during the planning process. If the SHPO determines that a proposed action would have an adverse effect on a listed historical resource, State Parks and the California SHPO must adopt prudent and feasible measures that will eliminate or mitigate the adverse effects.

In Nevada, the SHPO reviews projects for potential impacts upon historic properties. The Nevada SHPO keeps an inventory of the state's cultural resources to assist federal, state, and local agencies in planning projects so as to avoid impacts to important cultural resources; the agency also acts as a clearinghouse for nominations of sites and features to the National Register of Historic Places.

Historical resources impacts are site specific and depend on the location and type of development and individual effect on resources. Although standards are in place to protect these resources, project activities could still damage or destroy resources. Additionally, project designs could include alignments that overlap existing historical resources. For example, the Tallac Historic Site Improvements project in the 2020 RTP/SCS overlaps with the Tallac Point and Tallac Estates historical sites and the U.S. Highway 50 Sidewalk Construction from Kingsbury Grade to Lake Parkway project would follow a stretch of U.S. Highway 50 that is considered a historic linear feature by TRPA. These projects, as well as other new or modified projects in the 2020 RTP/SCS, would overlap existing historical linear and non-linear features. Therefore, impacts to historical resources would be potentially significant and Mitigation Measures 3.15-1a through 3.15-1c of the 2012 RTP/SCS EIR/ EIS would be required. These measures would require individual projects to prepare site-specific historic resources inventory reports, survey of historic resources not previously listed, and record historic buildings or structures where adverse effects to historic resources cannot be avoided.

Implementation of Mitigation Measure 3.15-1 would reduce potentially significant impacts to historic resources, similar to the 2017 RTP/SCS, because site-specific cultural resources inventory reports and surveys for historic resources would be used in coordination with the appropriate federal, state, and/or local agencies to avoid, move, record, or otherwise treat the resource appropriately, in accordance with pertinent laws and regulations. Overall, substantial and adverse impacts to historical resources would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. Individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Similar to the 2012 and 2017 RTP/SCS, implementation of the 2020 RTP/SCS would authorize new development, which could occur on properties that contain known or unknown archaeological resources and/or human remains or result in adverse physical effects to significant archaeological sites or features. Because the 2020 RTP/SCS would result in new construction over the planning period, disturbance, disruption, or destruction of archaeological resources could occur through implementation of specific projects. Projects under the 2020 RTP/SCS would be required to comply with federal and state regulations and TRPA Code standards for the protection of archaeological

resources and provide processes to avoid or minimize impacts to these resources. Specifically, TRPA Code Standard 67.3.1 requires evaluation of any potential archaeological, cultural, or historical resources discovered during project construction by a qualified archaeologist.

Archaeological resources impacts are site specific and depend on the location and type of physical changes, specifically ground-disturbing activities. Although standards are in place to protect these resources, implementation of new or modified projects under the 2020 RTP/SCS could still uncover or damage resources during grading and excavation, pile driving, and heavy equipment use. Therefore, impacts to archaeological resources would be potentially significant, similar to the 2017 RTP/SCS, and projects under the 2020 RTP/SCS would be required to adhere to Mitigation Measures 3.15-2a, 3.15-2b, 3.15-2c, and 3.15-2d from the 2012 RTP/SCS EIR/EIS. These measures would require individual projects to prepare site-specific archaeological resources inventory reports, conduct archaeological testing and data recovery, conduct archaeological monitoring during construction, and stop work in the event of an archaeological discovery.

Implementation of Mitigation 3.15-2 would reduce potentially significant impacts to archaeological resources, similar to the 2017 RTP/SCS, because mitigation would be developed in coordination with the appropriate federal, state, and/or local agencies to avoid, move, record, or otherwise treat the resource appropriately, in accordance with pertinent laws and regulations. Overall, substantial and adverse impacts to historical resources would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Similar to the 2012 and 2017 RTP/SCS, implementation of the 2020 RTP/SCS would authorize new development, which could occur on properties that contain known or unknown human remains or result in adverse physical effects to human remains. Because the 2020 RTP/SCS would result in new construction over the planning period, disturbance, disruption, or destruction of known or unknown human remains could occur through implementation of specific projects.

For projects in California, Section 7050.5(b) of the California Health and Safety Code specifies protocol when human remains are discovered. The code includes requirements that, if human remains are discovered, work shall cease within the immediate area; the County Coroner be notified; and, if the remains are determined to be of Native American origin, a qualified archaeologist work with the Coroner's Office to identify the Most Likely Descendant, who will assist in making a decision about further treatment of the remains as required in PRC Section 5097.98. Similarly, Nevada Revised Statutes (NRS) Chapter 383, Historic Preservation and Archaeology, provides protection of Indian burial sites discovered in Nevada. NRS requires, among other things, immediate consultation with the appropriate tribal authorities upon discovery of a native burial site. Although standards are in place to protect human remains, development of new or modified projects under the 2020 RTP/SCS could still result in accidental discovery during grading and excavation. Therefore, impacts would be potentially significant and Mitigation Measure 3.15-3 in the 2012 RTP/SCS EIR/EIS would be required for projects under the 2020 RTP/SCS. This measure

requires projects to stop work immediately if human remains are discovered or recognized in any location on an individual project site.

Implementation of Mitigation 3.15-3 would reduce potentially significant impacts to human remains because mitigation would be developed in consultation with the appropriate federal, state, and/or local agencies to avoid, move, record, or otherwise treat the resource appropriately, in accordance with pertinent laws and regulations. Overall, substantial and adverse impacts to human remains would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

TRPA Environmental Checklist

Section 20 – Archaeological/Historical

- a. *Will the proposal result in an alteration of or adverse physical or aesthetic effect to a significant archaeological or historical site, structure, object, or building?*

Refer to CEQA items “a” and “b” above for a discussion of potential physical impacts to archaeological and historic sites, structures, objects and buildings. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO WITH MITIGATION

- b. *Is the proposed project located on a property with any known cultural, historical, and/or archaeological resources, including resources on TRPA or other regulatory official maps or records?*

Refer to CEQA items “a” and “b” above for a discussion of potential impacts to archaeological and historic resources. Similar to the 2012 and 2017 RTP/SCS, implementation of the 2020 RTP/SCS would authorize new transportation and land use projects, which could occur on or adjacent to properties that contain known cultural, historical, and/or archaeological resources. Because the 2020 RTP/SCS would result in some new construction over the planning period disturbance, disruption, or destruction of these resources could occur through implementation of specific transportation projects. Projects under the 2020 RTP/SCS would be required to comply with federal and state regulations and TRPA Code standards for the protection of historical, cultural, and archaeological resources and provide processes to avoid or minimize impacts to these resources. As described above under CEQA items “a” and “b,” TRPA Code Standards 67.3.1 through 67.3.4 of the Historic Resource Protection chapter require projects to be evaluated on a site-by-site basis for potential archaeological, cultural, or historic resources and adhere to a resource protection plan as necessary.

Implementation of Mitigation Measures 3.15-1 through 3.15-3 in the 2012 RTP/SCS EIR/EIS would reduce potentially significant impacts to cultural, historical, and/or archaeological resources

because mitigation would be developed in consultation with the appropriate federal, state, and/or local agencies to avoid, move, record, or otherwise treat the resource appropriately, in accordance with pertinent laws and regulations. Overall, substantial and adverse impacts to historical, archaeological, and cultural resources would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

c. Is the property associated with any historically significant events and/or sites or persons?

Refer to TRPA Environmental Checklist item “b” above for a discussion of potential impacts to archaeological and historic resources. Substantial and adverse impacts to historical resources would remain less than significant with implementation of Mitigation Measures 3.15-1 through 3.15-3 from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

d. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?

Implementation of the 2020 RTP/SCS would authorize new development that has the potential to cause physical changes that would affect unique ethnic cultural values in the region. Because the 2020 RTP/SCS would result in some new construction over the planning period, new development has the potential to disturb, disrupt, or restrict ethnic and cultural uses and values through implementation of specific projects. Projects under the 2020 RTP/SCS would be required to comply with federal and state regulations and TRPA Code standards for the protection of tribal resources and provide processes to avoid or minimize impacts to these resources. As described under TRPA Environmental Checklist item “a,” Code Standard 67.3.2 requires projects in areas with known or newly discovered sites of cultural significance include a site survey prior to TRPA approval. This standard also requires consultation with the Washoe Tribe on all site surveys to determine if tribally significant sites are present. If resource(s) are discovered and deemed significant, then a resource protection plan is required. TRPA Code Standard 67.3.3 requires this plan be prepared by a qualified professional and may provide for surface or subsurface recovery of data and artifacts and recordation of structural and other data.

However, as identified above under CEQA items “a” and “b,” implementation of new or modified projects in the 2020 RTP/SCS could still uncover or destroy historic or archaeological resources during grading and excavation, pile driving and heavy equipment use or include alignments that overlap existing historical resources. Additionally, as described in CEQA Environmental Checklist item “c,” although standards are in place to protect human remains, project activities could still result in accidental discovery during grading and excavation. Accidentally discovered remains could be of Native American origin. Therefore, impacts to ethnic and cultural values would be potentially significant and implementation of all mitigation measures included in the 2012 RPT/SCS and as

described above under the CEQA Environmental Checklist would be required for projects included in the 2020 RTP/SCS.

Implementation of Mitigation Measures 3.15-1a, 3.15-1b, 3.15-1c, 3.15-2a, 3.15-2b, 3.15-2c, 3.15-2d, and 3.15-3 from the 2012 RTP/SCS would reduce impacts to cultural and ethnic values because they would require consultation with the Native American Heritage Commission and the Washoe Tribe; require avoidance, preservation in place, excavation, documentation, and/or data recovery of historical and archaeological resources; and require assessment of and adherence to a formal recommendation for any discovered human remains. Overall, substantial and adverse impacts to unique ethnic cultural values would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- e. *Will the proposal restrict historic or pre-historic religious or sacred uses within the potential impact area?*

Implementation of the 2020 RTP/SCS would authorize new development that has the potential to cause physical changes that restrict historic or prehistoric religious or sacred uses within the region. Because the 2020 RTP/SCS would result in some new construction over the planning period, new development has the potential to disturb, disrupt, or restrict pre-historic religious or sacred uses through implementation of specific projects. However, as described above under TRPA Environmental Checklist item “d,” implementation of Mitigation Measures 3.15-1a, 3.15-1b, 3.15-1c, 3.15-2a, 3.15-2b, 3.15-2c, 3.15-2d, and 3.15-3 would reduce impacts to cultural resources. Overall, substantial and adverse impacts to historic or pre-historic religious or sacred uses would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

6 Energy

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	N/A	No	No	No	N/A
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	N/A	No	No	No	N/A

TRPA Environmental Checklist: Section 15 – Energy

Will the proposal result in:

a. Use of substantial amounts of fuel or energy?	N/A	No	No	No	N/A
b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	N/A	No	No	No	N/A

Discussion

CEQA Guidelines Appendix F (Energy Conservation) and the updated Appendix G guidelines published in December of 2018 require that environmental analysis include a discussion of the potential energy impacts of proposed projects, with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The 2012 EIR/EIS and 2017 IS/IEC did not include a separate section analyzing potential environmental impacts related to the topic of Energy because it was not required under the *CEQA Guidelines* in effect at the time of the 2012 and 2017 analysis. The topic of electrical and natural gas use was addressed in Impact 3.13-4 of the 2012 EIR/EIS.

Projects new to the 2020 RTP/SCS that would require energy use during construction include bikeway improvements, new bike trails, new pedestrian paths and sidewalks, new transit terminals, and new traffic signage. Projects that would require energy use during operation include the new

shuttle and electric bus operation and street sweeping activities by the Nevada Department of Transportation.

CEQA Environmental Checklist

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Construction of 2020 RTP/SCS projects would require energy resources primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Construction would also use building materials that would require energy use during the manufacturing and/or procurement of that material. However, it is reasonable to assume that manufacturers of building materials such as concrete, steel, lumber, or other building materials would employ energy conservation practices in the interest of minimizing the cost of doing business. Energy use during demolition and construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. Construction activities would utilize fuel-efficient equipment consistent with state and federal regulations, including the Corporate Average Fuel Economy (CAFE) standards, Energy Policy and Conservation Act of 1975, pollution standards for light-duty vehicles under Section 202 of the Clean Air Act, Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, and would comply with state measures to reduce the inefficient, wasteful, or unnecessary consumption of energy. Furthermore, in the interest of cost efficiency, construction contractors would not be anticipated to utilize fuel in a manner that is wasteful or unnecessary. Therefore, project construction activities would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and impacts would be less than significant.

Energy demand from project operation would include fuel consumed by transit vehicles resulting from new transit routes or stops, and electricity used for charging vehicles, lighting at new transit facilities, and safety lighting along proposed trails. The 2020 RTP/SCS would not increase the capacity of roadways in the Plan Area; would primarily add projects that would reduce vehicle use and improve bicycling, pedestrian, and transit facilities; and would implement VMT-reducing projects and programs. In addition, all new buses proposed under the 2020 RTP/SCS would run on clean energy such as electric and hydrogen fuel. Finally, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce energy use. Energy usage resulting from 2020 RTP/SCS projects during operation would not be considered wasteful, inefficient, or unnecessary and fuel usage would decrease from reduced VMT.

Because projects included in the 2020 RTP/SCS would not increase capacity and would implement VMT reducing projects and programs, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

As described in Section 2, *Project Description*, above, the 2020 RTP/SCS is an update to the current 2017 RTP/SCS and includes changes in transportation projects to address the needs of the region and future land use patterns. The 2020 RTP/SCS land use scenario concentrates the forecasted growth in population and employment in already urbanized areas. New transportation projects included in the 2020 RTP/SCS involve the construction of active transportation facilities including trails, bikeways, pedestrian facilities, and other non-motorized paths. The provision of non-motorized routes would promote walking and cycling, reducing the region's reliance on vehicles and thus gasoline and diesel fuels. The 2020 RTP/SCS also includes projects that would construct complete streets, install transportation demand measures, fund electric buses, and improve bus transit facilities. These project features are consistent with regional and statewide goals to achieve energy use reductions, including California Energy Efficiency Action Plan fuel efficiency standards, building energy efficiency standards, and clean energy usage goals. The projects also support TRPA Regional Plan goals and policies to construct energy efficient buildings, facilitate the use of electric and zero emissions vehicles, and increase energy conservation. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 15 – Energy

- a. *Will the proposal result in use of substantial amounts of fuel or energy?*

Refer to Section 2, *Project Description*, and item (b) of the CEQA Environmental Checklist, above, for types of projects included in the 2020 RTP/SCS, which would reduce the consumption of fuel in the region. 2020 RTP/SCS projects would not result in a substantial increase in the use of fuel, and would encourage the use of renewable energy sources, such as through the funding of electric buses for the Bike and Pedestrian Facilities Operations and Maintenance Project. The 2020 RTP/SCS would not increase the capacity of roadways in the Plan Area; would primarily add projects that would reduce vehicle use and would improve bicycling, pedestrian, and transit facilities; and would implement VMT-reducing projects and programs. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce fuel and energy use. Therefore, no new utility consumption not previously analyzed would occur.

NO

- b. *Will the proposal result in substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?*

Refer to Section 2, *Project Description*, and item (b) of the CEQA Environmental Checklist, above, for types of projects included in the 2020 RTP/SCS, which would reduce the long-term consumption of fuel in the region. This is similar to the conclusions of the 2012 EIR/EIS and 2017 IS/IEC, which found that increased fuel usage would only occur during construction and increasing fuel efficiency standards as well as the decrease in VMT would decrease the long-term consumption of fuel. These projects would not substantially increase the demand on sources of energy or require the development of new energy sources because the 2020 RTP/SCS would not increase the capacity of

roadways in the Plan Area; would primarily add projects that would reduce vehicle use and would improve bicycling, pedestrian, and transit facilities; and would implement VMT-reducing projects and programs. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. The 2020 RTP/SCS would not increase energy demands beyond the 2012 EIR/EIS or 2017 IS/IEC because the 2020 RTP/SCS would decrease long-term VMT in the Plan Area. Therefore, no new utility consumption not previously analyzed would occur.

NO

7 Geology and Soils

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

2012
RTP/SCS
EIR/EIS
Impact 3.7-
2

No

No

No

N/A

ii. Strong seismic ground shaking?

2012
RTP/SCS
EIR/EIS
Impact 3.7-
2

No

No

No

N/A

iii. Seismic-related ground failure, including liquefaction?

2012
RTP/SCS
EIR/EIS
Impact 3.7-
2

No

No

No

N/A

iv. Landslides?

2012
RTP/SCS
EIR/EIS
Impact 3.7-
2

No

No

No

N/A

b. Result in substantial soil erosion or the loss of topsoil?

2012
RTP/SCS
EIR/EIS
Impact 3.7-
1

No

No

No

N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	2012 RTP/SCS EIR/EIS Impact 3.7-1 and 3.7-3	No	No	No	N/A
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	2012 RTP/SCS EIR/EIS Impact 3.7-1	No	No	No	N/A
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	2012 RTP/SCS EIR/EIS Page 3.13-5	No	No	No	N/A
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	2012 RTP/SCS EIR/EIS Impact 3.15-4	No	No	No	N/A

TRPA Environmental Checklist: Section 1 – Land

Will the proposal result in:

a. Compaction or covering of the soil beyond the limits allowed in the land capability or Individual Parcel Evaluation (IPES)?	2012 RTP/SCS EIR/EIS Impact 3.7-4	No	No	No	N/A
b. A change in the topography or ground surface relief features of site inconsistent with the	2012 RTP/SCS EIR/EIS Impact 3.7-1	No	No	No	N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?	
	natural surrounding conditions?					
c.	Unstable soil conditions during or after completion of the proposal?	2012 RTP/SCS EIR/EIS Impact 3.7-1	No	No	No	N/A
d.	Changes in the undisturbed soil or native geologic substructures or grading in excess of 5 feet?	2012 RTP/SCS Impact 3.7-1	No	No	No	N/A
e.	The continuation of or increase in wind or water erosion of soils, either on or off the site?	2012 RTP/SCS Impact 3.7-1	No	No	No	N/A
f.	Changes in deposition or erosion of beach sand, or changes in siltation, deposition or erosion, including natural littoral processes, which may modify the channel of a river or stream or the bed of a lake?	2012 RTP/SCS EIR/EIS Impact 3.7-1 and 3.8-5	No	No	No	N/A
g.	Exposure of people or property to geologic hazards such as earthquakes, landslides, backshore erosion, avalanches, mud slides, ground failure, or similar hazards?	2012 RTP/SCS EIR EIS Impact 3.7-1, 3.7-2, 3.7-3	No	No	No	N/A

Discussion

Transportation and land use projects included in the 2020 RTP/SCS would involve construction, disturbance of soils and in some instances, changes to topography. Larger scale projects more likely to have impacts to geology and soils, due to more ground disturbance, include, but are not limited to, the U.S. Highway 50 Summit Bridge Rehabilitation, Dollar Creek and South Tahoe Greenway shared use trails, segments of the Nevada Stateline to Stateline Bikeway, the Pope Beach bike path, and the Route 89 Class I and Lake Side Phase 2C bike trails. Other projects include safety

improvements and complete streets project improvements such as additions of sidewalks along U.S. Highway 50 from Kingsbury Grade to Lake Parkway as well as rehabilitation of roads, bike and pedestrian facilities generally within existing urbanized areas and road right of ways. Projects would also be subject to local jurisdiction grading and earthwork standards and state and federal requirements.

All projects implemented under the 2020 RTP/SCS must comply with the land coverage standards and limitations set forth in Chapter 30 of the TRPA Code of Ordinances. Chapter 53 of the TRPA Code establishes the IPES and related procedures, in accordance with the 1987 Regional Plan. In accordance with Chapter 53, vacant residential parcels within the Plan Area are evaluated, assigned a numerical IPES score, and ranked within each local jurisdiction from most suitable to least suitable for development.

Chapter 60 of the TRPA Code sets forth requirements for installation of BMPs for the protection or restoration of water quality and attainment of minimum discharge standards. Projects are required to comply with temporary and permanent BMP programs as a condition of approval. Chapter 33 of the TRPA Code describes the various standards and regulations that protect the environment against significant adverse effects from excavation, filling, and clearing, due to such conditions as exposed soils, unstable earthworks, or groundwater interference.

CEQA Environmental Checklist

- a.1. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*
- a.2. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*
- a.3. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*
- a.4. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

The Plan Area lies within a tectonically active, asymmetric half-graben, a depressed block of land bordered by a major fault. Evidence shows that Tahoe Basin faults have had pre-historic earthquakes of a magnitude of 7.0 within the past 10,000 years (Segale and Cobourn 2005). The Carson Range fault system is one of the largest fault systems east of the Plan Area and runs for 60 miles along the east face of the Carson Range from Reno to Markleeville. The probability of at least one magnitude ≥ 6.0 event occurring in the Reno-Carson City urban corridor over a 50-year period is estimated to be between 34 percent and 98 percent (dePolo et al. 1997).

According to the Earthquake Potential Map for Portions of Eastern California and Western Nevada (California Geological Survey 2005), the Plan Area is considered to have a relatively low to moderate potential for groundshaking caused by seismic-related activity. However, earthquakes occurring nearby, such as in the Reno-Carson urban corridor, have the potential to trigger secondary hazards in the Plan Area.

Hazards related to seismic activity, which could affect future development in the Plan Area under the 2020 RTP/SCS, are the same hazards that were analyzed in the 2012 RTP/SCS EIR/EIS and 2017

RTP/SCS IS/IEC. The 2020 RTP/SCS land use scenario would continue to concentrate development within urbanized areas, consistent with the current development pattern, and the location, distribution, density, and growth of the human population in the Plan Area would be expected to remain similar to those under the existing conditions. As described in Section 14, *Population and Housing*, increases in the Plan Area population would be limited by the development rights and allocations. As described in Section 16, *Recreation*, the 2020 RTP/SCS would provide additional recreational opportunities for residents and visitors. Although more individuals may be exposed to hazards from seismic activity, the potential of seismic hazards is low and projects would be required to complete individual project review and comply with local standards to reduce seismic hazards. Therefore, there would not be a significant increase in exposure of people in the Plan Area to risk of loss, injury, or death involving seismic activity.

Furthermore, all proposed development under the 2020 RTP/SCS would be assessed on a project-by-project basis and would be required to conform to all existing regional and local regulations to minimize impacts due to adverse effects involving liquefaction, landslides, or rupture of a known earthquake fault. Per requirements of TRPA Code of Ordinances Section 33.4, future development would be required to undergo site-specific geotechnical analysis, and if applicable, employ design standards that consider seismically active areas and comply with current California and Nevada building codes and local jurisdictional seismic standards. Because projects included in the 2020 RTP/SCS would result in a comparable level of risk related to ground rupture, ground shaking, liquefaction, and landslides as previously analyzed, and would similarly require site specific design per regional and local regulations, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

The risk of soil erosion increases with increasing slope, precipitation, ground disturbance, and decreasing vegetative cover. The 2020 RTP/SCS would result in new construction over the planning period that could result in soil erosion through implementation of specific transportation projects. Removal of soil and vegetation exposes bare earth and could cause unstable conditions, resulting in soils that are easily disturbed by equipment and eroded by rain and wind. Additionally, proposed road/trail alignments situated on steep slopes in areas underlain by unstable geology or sensitive soils are prone to higher erosion hazard that could result in erosion of surface soils.

Implementation of projects under the 2020 RTP/SCS would include temporary disturbance of soil, exposure of disturbed areas to storm events, and/or excavation more than five feet below ground surface. Similar to the 2012 and 2017 RTP/SCS, future project development activities would likely include grading, excavations, cut and fill, and trenching, all of which could alter existing topography or ground surface of individual sites throughout the Plan Area. As discussed further in Section 10, Hydrology and Water Quality, construction projects in the Plan Area would be required to meet multiple requirements and regulations of the TRPA, LRWQCB (in California), Nevada Division of Environmental Protection, and federal and local agencies. These requirements include preparation of a Storm Water Pollution Prevention Plan (SWPPP) pursuant to the National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Program for projects larger than one acre and the implementation of BMPs for sediment and erosion control.

Additionally, Chapter 33 of the TRPA Code of Ordinances requires the preparation of soil reports to determine the effects of proposed grading activities on soil stability and groundwater where there

have been recorded landslides or topographical evidence of landslides and where proposed or existing cuts or fills will exceed 20 feet. Chapter 33 identifies various standards and regulations related to grading to protect against significant adverse effects from excavation, filling, and clearing. TRPA Code Section 33.3.6 prohibits excavation more than 5 feet below ground surface (or less in areas of known high groundwater) because of the potential for groundwater interception or interference, except under certain defined and permitted conditions. TRPA requires that final construction plans be submitted for review and conformance with TRPA rules, regulations, and ordinances as part of standard conditions of approval of a project. The existing procedure for granting grading season exceptions would remain unchanged for projects under the 2020 RTP/SCS. An assessment of site- and weather-specific conditions is performed prior to issuing grading season exceptions.

The 2020 RTP/SCS includes site-specific projects designed to improve erosion control within the context of the planned transportation facilities. All development pursuant to the 2020 RTP/SCS would be required to adhere to existing regulations and permit requirements, which reduce the potential for substantial soil erosion or loss of topsoil. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*

Development of land use and transportation projects under the 2020 RTP/SCS would likely require grading or earthwork, which would increase the propensity for soils to become unstable, thereby increasing the risk to people or structures. However, as mentioned above under CEQA items “a” and “b” and similar to the 2012 and 2017 RTP/SCS, all proposed projects would be assessed on a project-by-project basis and would be required to conform to existing regional and local regulations to minimize excessive grading and soil instability. Through adherence to existing laws and regulations, developments associated with the 2020 RTP/SCS would be required to undergo site-specific geotechnical analysis, pursuant to TRPA Code Section 33.4, and if applicable, would employ all standard design, grading, and construction practices to avoid or reduce geological hazards, including those associated with unstable soils and slope failure. Corrective measures such as structural reinforcement and using engineered fill to replace unstable soils would be applied to the design of individual future projects. All site designs would be reviewed and approved by the appropriate agencies. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Development of land use and transportation projects under the 2020 RTP/SCS could be located on expansive soil, thereby increasing the risk to life or property. However, as mentioned above under CEQA item “c,” all proposed projects would be assessed on a project-by-project basis and would be required to undergo site-specific geotechnical analysis, pursuant to TRPA Code Section 33.4, and employ all standard design, grading, and construction practices to avoid or reduce geological hazards, including those associated with unstable soils. Additionally, corrective measures to replace unstable soils or implement structural reinforcement would be applied to the design of individual projects. All site designs would be reviewed and approved by the appropriate agencies. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- e. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The 2020 RTP/SCS does not propose to install septic systems as part of any of the new or modified projects or as part of the RTP/SCS. There would be no impact.

NO IMPACT

- f. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

As stated in the 2012 RTP/SCS EIR/EIS, surfaces in the Plan Area were created by geologic uplift and have deep granitic bedrock and shallow surface soils. Because the Plan Area is not underlain with sedimentary rock formations (which are most likely to contain fossils), it is not likely to contain major paleontological resources. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Therefore, new and modified projects proposed as part of the 2020 RTP/SCS would not destroy a unique paleontological resource. There would be no impact.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 1 – Land

- a. *Will the proposal result in compaction or covering of the soil beyond the limits allowed in the land capability or Individual Parcel Evaluation System (IPES)?*

Similar to the 2012 and 2017 RTP/SCS, new and modified projects included in the 2020 RTP/SCS have the potential to increase coverage in the Plan Area. All projects in the Plan Area are required to adhere to TRPA Code of Ordinances Chapter 30, *Land Coverage*, which sets forth regulations for the permissible amount of land coverage in the Plan Area, including land capability districts (LCDs), prohibition of additional land coverage in certain LCDs, and transfer and mitigation of land

coverage. Therefore, all new or modified projects included in the 2020 RTP/SCS that result in additional coverage would either be limited to the percent coverage allowed for each LCD set forth in TRPA Code of Ordinances Chapter 30 or required to compensate for added coverage in excess of the base allowable by identifying, purchasing, and transferring coverage from offsite parcels in accordance with TRPA Code of Ordinances Chapter 30.

In addition, proposed bicycle and pedestrian facilities (such as the Tahoe City Lakeside Trail Missing Link, Dollar Creek and South Tahoe Greenway shared use trails) could extend into SEZs within the Plan Area. TRPA policy generally does not allow any new land coverage within SEZs but does provide certain exceptions, including public outdoor recreation facilities and Linear Public Service Facilities that meet certain criteria. Any future proposed bike and/or pedestrian trails that would result in new land coverage in an SEZ would be required to meet these specific criteria and to fully mitigate all potential impacts associated with its construction and operation.

The 2020 RTP/SCS land use scenario would continue to concentrate development within community centers, consistent with the current development pattern, and the location, distribution, density, and growth of the human population in the Plan Area would be expected to remain similar to those under the existing conditions. Therefore, new areas of the Plan Area would not be opened up to substantial development or land coverage and, as described in Section 14, *Population and Housing*, increases in the Plan Area population would be limited by the development rights and allocations of the IPES. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would result in a comparable level land coverage on highly capable lands as what was previously analyzed and would similarly require site specific design per regional and local regulations, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 and 2017 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- b. Will the proposal result in a change in the topography or ground surface relief features of site inconsistent with the natural surrounding conditions?*

Please refer to CEQA item “b” above, for a full discussion of potential changes in the topography or ground surface relief features of individual sites of development under the 2020 RTP/SCS.

Similar to the 2012 and 2017 RTP/SCS, future project development activities under the 2020 RTP/SCS would likely include grading, excavations, cut and fill, and trenching, all of which could alter existing topography or ground surface of individual sites throughout the Plan Area. Projects proposed under the 2020 RTP/SCS would be assessed on a project-to-project basis and would be required to conform to existing regional and local regulations to minimize excessive grading and soil instability. Therefore, impacts resulting from changes in the topography or ground surface relief features on individual sites would be less than significant. Projects under the 2020 RTP/SCS would additionally meet the requirements and regulations of TRPA, LRWQCB, NDEP, and federal and local agencies, which include coverage restrictions, implementation of BMPs, and grading and excavation permits. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

c. Will the proposal result in unstable soil conditions during or after completion of the proposal?

Please refer to CEQA item “c” above for a discussion of impacts to unstable soil conditions from development under the 2020 RTP/SCS. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

d. Will the proposal result in changes in the undisturbed soil or native geologic substructures or grading in excess of 5 feet?

Please refer to CEQA item “b” above, for a full discussion of potential changes in the undisturbed soil, native geologic substructures or grading in excess of five feet from development under the 2020 RTP/SCS.

As described under CEQA item “b,” the 2020 RTP/SCS would include temporary disturbance of soil, exposure of disturbed areas to storm events, and/or excavation more than 5 feet below ground surface. Similar to the 2012 and 2017 RTP/SCS, future project development activities would likely include grading, excavations, cut and fill, and trenching, all of which could alter undisturbed soil or geologic substructures of individual sites throughout the Plan Area. All proposed projects would be assessed on a project-to-project basis and would be required to conform to existing regional and local regulations to minimize excessive grading and soil instability. Therefore, impacts due to soil disturbance or grading in excess of 5 feet would be reduced. Projects under the 2020 RTP/SCS would similarly meet the requirements and regulations of TRPA, LRWQCB, NDEP, and federal and local agencies, which include coverage restrictions, implementation of BMPs, and grading and excavation permits. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

e. Will the proposal result in the continuation of or increase in wind or water erosion of soils, either on or off the site?

Please refer to CEQA item “b” above, for a discussion of impacts from potential wind or water erosion on- or off-site of individual sites for development under the 2020 RTP/SCS. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- f. *Will the proposal result in changes in deposition or erosion of beach sand, or changes in siltation, deposition or erosion, including natural littoral processes, which may modify the channel of a river or stream or the bed of a lake?*

Please refer to CEQA item “c” in Section 10, *Hydrology and Water Quality*, for a discussion of impacts from erosion of beach sand, or changes in solution, deposition or erosion which may modify the channel of a river, stream, or the bed of a lake. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- g. *Will the proposal result in exposure of people or property to geologic hazards such as earthquakes, landslides, backshore erosion, avalanches, mud slides, ground failure, or similar hazards?*

Development of land use and transportation projects under the 2020 RTP/SCS would likely require grading or earthwork, which would increase the risk for people or property to be exposed to geologic hazards. As mentioned above under CEQA items “a” and “c” and similar to the 2012 and 2017 RTP/SCS, all new and modified projects under the 2020 RTP/SCS would be assessed on a project-by-project basis and would be required to conform to existing regional and local regulations to minimize excessive grading and soil instability. Through adherence to existing laws and regulations, developments associated with the 2020 RTP/SCS would be required to undergo site-specific geotechnical analysis, pursuant to TRPA Code Section 33.4, and if applicable, would employ all standard design, grading, and construction practices to avoid or reduce geological hazards, including earthquakes, landslides, backshore erosion, avalanches, mud slides, ground failure, or similar hazards. Corrective measures such as structural reinforcement and using engineered fill to replace unstable soils would be applied to the design of individual future projects. All site designs would be reviewed and approved by appropriate agencies. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

8 Greenhouse Gas Emissions

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	2012 RTP/SCS EIR/EIS Impact 3.5-1 and Impact 3.5-2	No	No	No	Yes
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	2012 RTP/SCS EIR/EIS Impact 3.5-2	No	No	No	Yes

TRPA Environmental Checklist: Section 2 – Air Quality

Will the proposal result in:

c. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?	2012 RTP/SCS EIR/EIS Impact 3.5-1 and Impact 3.5-2	No	No	No	Yes
---	---	----	----	----	-----

Discussion

The analysis in this section is based on the Greenhouse Gas Emissions Study prepared for the 2020 RTP/SCS by Rincon in August 2020. For detailed information on greenhouse gas (GHG) background, assumptions, and model outputs, please see Appendix G of this document.

Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth’s atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term “climate change” is often used interchangeably with the term “global warming,” but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the

past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. However, scientists have observed acceleration in the rate of warming over the past 150 years. The United Nations Intergovernmental Panel on Climate Change (IPCC) expressed a high degree of confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-twentieth century (IPCC 2014).

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and natural processes, such as oceanic evaporation, largely determine its atmospheric concentrations.

GHGs are emitted by natural processes and human activities. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as “carbon dioxide equivalent” (CO₂e), and is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 28, meaning its global warming effect is 28 times greater than carbon dioxide on a molecule per molecule basis (IPCC 2015).

Greenhouse Gas Emissions Inventory

Federal Emissions Inventory

Total United States (U.S.) GHG emissions were 6,676.6 million metric tons (MMT or gigatonne) of CO₂e in 2018. Since 1990, total U.S. emissions have increased by an average annual rate of 0.13 percent for a total increase of 3.7 percent since 1990. Emissions increased by 2.9 percent from 2017 to 2018. The increase from 2017 to 2018 was primarily driven by increased fossil fuel combustion because of multiple factors, including increased energy usage from greater heating and cooling needs due to a colder winter and hotter summer in 2018 as compared to 2017. In 2018, the transportation and industrial end-use sectors accounted for 36 percent and 26 percent, respectively, of GHG emissions while, the residential and commercial end-use sectors accounted for 20 percent and 17 percent of GHG emissions, respectively, with electricity emissions distributed among the various sectors (USEPA 2020).

California Emissions Inventory

Based on the California Air Resource Board’s (CARB) California Greenhouse Gas Inventory for 2000-2017, California produced 424.1 MMT of CO₂e in 2017. The major source of GHG emissions in California is transportation, contributing 41 percent of the state’s total GHG emissions. The industrial sector is the second largest source, contributing 24 percent of the state’s GHG emissions, and electric power accounts for approximately 15 percent (CARB 2019b). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California’s per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. In 2016, the State of California achieved its 2020 GHG emission reduction goals as emissions fell below 431 MMT of CO₂e. The annual 2030 statewide target emissions level is 260 MMT of CO₂e (CARB 2017).

Nevada Emissions Inventory

The Nevada Division of Environmental Protection prepares GHG emissions inventory for the State of Nevada pursuant to NRS 44B.380 and SB 254 passed in 2019. Based on NDEPS's Greenhouse Gas Inventory and Projections, 1990 to 2039, Nevada produced 38.34 MMT of CO₂e in 2016 (NDEP 2019). The major source of GHG emissions in Nevada is transportation, contributing to 35 percent of the state's total GHG emissions. Electricity generation is the second largest source, contributing approximately 32 percent. In 2016 Nevada contributed 0.68 percent of the total gross GHG emissions in the U.S. The annual 2030 statewide target emissions level for Nevada is 45 percent below 2005 emissions or 27.15 MM of CO₂e.

Local Emissions Inventory

The Lake Tahoe Sustainable Communities Program Sustainability Action Plan estimated that total emissions for the Lake Tahoe region were 1,398,554 MT of CO₂e (Lake Tahoe Sustainable Communities Program 2013). Electricity consumption, natural gas consumption, and transportation contribute approximately 75 percent of GHG emissions in the Region. Electricity consumption was the largest source of GHG emissions at 36 percent, followed by on-road transportation at 23 percent, and natural gas consumption at 17 percent. A regional GHG reduction target of 15 percent below the region's baseline by 2020 was recommended for the plan.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature (GMST) from 2015 to 2017 was approximately 1.8°F higher than the average GMST over the period from 1880 to 1900 (National Oceanic and Atmospheric Administration 2020). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations jointly indicate that LSAT and sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014, 2018).

Regulatory Background

Federal

The U.S. Supreme Court determined in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) that the USEPA has the authority to regulate motor-vehicle GHG emissions under the federal Clean Air Act. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that established the GHG permitting thresholds that determine when Clean Air Act permits under the

New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 S. Ct. 2427 [2014]), the U.S. Supreme Court held the USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a PSD or Title V permit. The Court also held that PSD permits otherwise required based on emissions of other pollutants, may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

On April 30, 2020, the USEPA and the National Highway Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO₂ emissions standards for model years 2021-2026 passenger cars and trucks such that the standards increase by approximately 1.5 percent each year through model year 2026 as compared to the 2012 standards which required an approximately five percent annual increase (National Highway Traffic Safety Administration 2020). To account for the effects of the Part Two Rule, CARB released off-model adjustment factors on June 26, 2020 to adjust criteria air pollutant emissions outputs from the EMFAC model (CARB 2020a).

State

CALIFORNIA

AB 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, USEPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles, beginning with the 2009 model year, which allows California to implement more stringent vehicle emission standards than those promulgated by the USEPA. Pavley I regulates model years from 2009 to 2016 and Pavley II, now referred to as "LEV (Low Emission Vehicle) III GHG," regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the LEV, Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs, and would provide major reductions in GHG emissions. If fully implemented, new automobiles would emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels by 2025 (CARB 2011). However, as a result of the SAFE Rule discussed above, fuel economy and GHG emission standards for new vehicles will increase by approximately 1.5 percent each year through model year 2026 as compared to the 2012 standards which required an approximately five percent annual increase.

The "California Global Warming Solutions Act of 2006," AB 32, outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT of CO₂e. CARB approved the Scoping Plan on December 11, 2008 and the Plan included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008). Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since the Plan's approval.

The CARB approved the 2013 Scoping Plan update in May 2014. The update defined the CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 statewide goals. The update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the State's longer term GHG reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

On September 8, 2016, the governor signed SB 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 (see below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally appropriate quantitative thresholds consistent with statewide per capita goals of six MT of CO_{2e} by 2030 and two MT of CO_{2e} by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, sub-regional, or regional level), but not for specific individual projects because they include all emissions sectors in the state.

SB 375, signed in August 2008, enhances the State's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a SCS, which allocates land uses in the MPO's RTP. Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as "transit priority projects") would receive incentives to streamline CEQA processing. On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. TRPA was assigned targets of an 8 percent reduction in GHG emissions from per capita passenger vehicles by 2020 and a 5 percent reduction in GHG emissions from per capita passenger vehicles by 2035, relative to 2005 emission levels (CARB 2020b).

Adopted in September 2016, SB 1383 requires the CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the State's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from

eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

NEVADA

On April 10, 2007, Nevada Governor Jim Gibbons signed an executive order that created the Nevada Climate Change Advisory Committee (NCCAC). The executive order directed the NCCAC to develop recommendations for reducing Nevada’s GHG emissions. The NCCAC released its final report on May 31, 2008 in which it identified recommendations to reduce GHG emissions in sectors such as agriculture, energy, waste management, commercial and residential building, and transportation.

In 2019, the Nevada state legislature passed SB 254, which requires the State Department of Conservation and Natural Resources to issue an annual report concerning GHG emissions in Nevada. The annual reports also include policies that could inform future policy development initiatives designed to reduce GHG emissions statewide. The inaugural report was released for 2019, with proposed policies including the adoption of California vehicle emissions standards, adopting a goal of achieving 100 percent electricity from renewable sources by 2050, and reducing methane emissions from the waste and wastewater sectors. SB 254 and Executive Order 2019-22, signed by Governor Sisolak on November 22, 2019, together with the increased Renewable Portfolio Standard approved by the Legislature in 2019, form the foundation of Nevada’s efforts to address climate change through reducing GHG emissions from all parts of the economy, while driving innovative technologies and pursuing an inclusive and equitable transition to a sustainable, low-carbon economy.

The state of Nevada and its jurisdictions follow the air quality policies and regulations set forth by the Federal Highway Administration and the USEPA when evaluating the GHG emissions generated by the construction of road projects (Federal Highway Administration 2013).

Local

TRPA

In 1982, TRPA adopted nine environmental threshold carrying capacities (thresholds), which set environmental standards for the Lake Tahoe region and indirectly define the capacity of the Plan Area to accommodate additional land development. Thresholds define the environmental quality goals that the Regional Plan is required to achieve for matters including water quality, air quality, soil conservation, vegetation protection, fisheries, wildlife, scenic resources, noise and recreation. TRPA has not specifically identified any Environmental Threshold Carrying Capacities related to GHG emissions or climate change. The Lake Tahoe Regional Plan Goals and Policies document, which is designed to achieve and maintain adopted environmental thresholds, has one policy pertaining to GHG emissions (Policy AQ-1.3) that encourages the reduction of GHG emissions from motor vehicles and motorized machinery in the Plan Area. The TRPA Code of Ordinances includes a provision requiring that a GHG reduction strategy be incorporated into area plans adopted by local jurisdictions (TRPA Code Section 13.5.3.E) to reduce emissions of GHGs from operation and construction.

TRPA adopted a Sustainability Action Plan in December 2013, which provides tools to assist local governments, agencies, businesses, residents, visitors, and community groups with prioritizing and adopting consistent sustainability actions throughout the Region. The Sustainability Action Plan represents an integrated approach to reducing GHG emissions and striving toward zero-impact in all aspects of sustainability. The document includes the revised GHG emissions inventory, reduction

targets, and climate change and adaptation strategies. It is not a CEQA-qualified GHG reduction plan under which GHG impact analysis can be streamlined for new development projects

PLACER COUNTY APCD

Placer County APCD has adopted CEQA standards of significance for evaluating whether the GHG emissions of different types of projects would be a cumulatively considerable contribution to climate change in their *California Environmental Quality Act Thresholds of Significance Justification Report* (Placer County APCD 2016b). Placer County APCD recommends an array of GHG standards for determining whether a project's GHG emissions would be cumulatively considerable. Placer County APCD's recommendations are discussed in detail below.

CITY OF SOUTH LAKE TAHOE

In October, 2020, The City of South Lake Tahoe adopted a Climate Action Plan that outlines actions the City needs to take to achieve carbon reduction targets. The Climate Action Plan focuses on reducing emissions by 2030 and 2040 to align with California reduction targets. The City has set local targets of reducing GHG emissions to approximately 124,000 MT CO₂e per year in 2030 and 50,000 MT CO₂e per year in 2040 (CSLT 2020).

Methodology

For this analysis, the baseline year was updated to 2018 from the 2014 baseline year used in the 2017 RTP/SCS IS/IEC. The 2018 baseline includes new VMT estimates that characterize more current conditions and use TRPA's recently-updated Travel Demand Model. In addition, the planning horizon for the 2020 RTP/SCS has been updated to 2045, which is five years longer than the previous projection year of 2040 under the 2017 RTP/SCS.

Mobile Source Emissions Modeling

GHG emissions from on-road mobile sources were calculated using emission factors from CARB's EMFAC2017 model, off-model adjustment factors to account for the effects of the SAFE Vehicles Rule, and regional VMT from TRPA's Travel Demand Model, shown in Table 8. Consistent with the methodology used in the 2012 RTP/SCS EIR/EIS and 2017 IS/IEC, TRPA assumes that the vehicle fleet information contained in the EMFAC2017 model for the Lake Tahoe subareas of Placer and El Dorado counties would be representative of vehicles throughout the LTAB because the factors that determine vehicle choice (e.g., lifestyle, mobility, environmental, and local economic factors) do not differ dramatically throughout the region. Therefore, for the purposes of modeling mobile source criteria pollutant emissions, VMT in Nevada was distributed proportionally between the Lake Tahoe subareas of Placer and El Dorado counties.

Table 8 2020 RTP/SCS Annual VMT Data

Year	California	Nevada
2005	333,255,698	228,932,039
2018	289,919,549	199,044,756
2035	293,350,382	193,623,683
2045	300,106,817	194,542,687

VMT = vehicle miles traveled
 Source: TRPA 2020d

EMFAC2017 emission factors are established by CARB and incorporate mobility assumptions (e.g., vehicle fleets, speed, delay times, average trip lengths, time of day and total travel time) provided by TRPA’s Travel Demand Model and socioeconomic growth projections based on data from the UCLA Anderson Forecast, California Department of Finance, California Board of Equalization, California Energy Commission, U.S. Department of Energy, Energy Information Administration, and U.S. Bureau of Economic Analysis. Following adoption of the 2017 IS/IEC, CARB released EMFAC2017, replacing EMFAC2014, the model that was used in the 2017 RTP/SCS IS/IEC to estimate mobile source emissions in California and Nevada. EMFAC2017 accounts for updated fleet characterization, vehicle activity profile, and socio-econometric forecasting data; new vehicle testing data for emission rates; updated assumptions on the Advanced Clean Cars regulation; and implementation of new regulations and policies including Phase 2 GHG standards for heavy-duty vehicles and the Road Repair and Accountability Act of 2017 (SB 1). To account for the effects of the SAFE Vehicle Rule on mobile source GHG emissions, off-model adjustment factors published by CARB (2020) were applied to CO₂ emissions from gasoline-powered passenger cars (LDA) and light duty-trucks (LDT1, LDT2, and MDV).⁶ Projected vehicle emissions on the TRPA transportation network for the year 2045 under the 2020 RTP/SCS were compared with emissions estimated for baseline year 2018.

Table 9 provides a comparison of weighted average running exhaust emissions factors for CO₂ for the TRPA region using EMFAC2014 (utilized to model emissions in the 2017 RTP/SCS IS/IEC) and EMFAC2017 (utilized in this analysis). As shown in Table 9, the weighted average running exhaust emission factor in EMFAC2017 for CO₂ is 11 percent lower than that of EMFAC2014. See discussion in Section 3, *Air Quality*, for methodology of modeling the one new water taxi project (North Shore Water Taxi Project Phase 2035) proposed under the 2020 RTP/SCS.

⁶ The definition of light-duty trucks in the SAFE Vehicles Rule correlates to the definitions of LDT1, LDT2, and MDV by CARB in the EMFAC2017 model (CARB 2019d and 2020d).

Table 9 Weighted Average Emissions Factors for Vehicle Travel in the TRPA Jurisdiction in 2045

On-Road Mobile Source Emissions Model	CO ₂ Emissions Rate (grams/mile)
EMFAC2014	322.07
EMFAC2017	286.02
Percent Change	(11%)

CO₂ = carbon dioxide
 Note: Weighted average emissions rates are based on RUNEX emissions for each pollutant, including off-model adjustments for the effects of the SAFE Rule per CARB guidance (CARB 2020a).
 See Appendix F for calculations.

SB 375 Analysis

To determine whether the 2020 RTP/SCS would allow TRPA to meet its SB 375 reduction targets, per capita CO₂ emissions were calculated by multiplying the emission factors by the VMT from passenger vehicles and dividing by the region’s population. For this analysis, emission factors were generated using the SB 375 template in EMFAC, which deactivates Advanced Clean Cars (Pavley) and Low Carbon Fuel Standards. For the purposes of this analysis, the year 2005 is used as the baseline year per the requirements of SB 375. In accordance with CARB guidance, the same methodology and version of EMFAC (i.e., EMFAC2014) was utilized for SB 375 modeling for the 2045 RTP/SCS to provide a consistent comparison of per capita CO₂ emissions with the SB 375 targets (CARB 2019b, Appendix D). Furthermore, per CARB guidance, off-model adjustment factors related to the SAFE Rule were not applied in this analysis because EMFAC2017 does not account for the impact of light duty ZEV and GHG emissions standards when used in SB 375 mode (CARB 2020a). In addition to estimating per capita passenger vehicle emissions for years 2035 and 2045, emissions were recalculated for baseline year 2005 to account for updates made to the TRPA Travel Demand Model in 2020, which included calibrating and validating the model against traffic counts that represent a typical early/late summer weekday. The purpose of the updates was to create consistency between observed traffic counts, the original model design, the model inputs, and the subsequent model outputs. The result of these adjustments is a model that better represents on-the-ground travel conditions. In comparison, the former travel demand model originally used to calculate the SB 375 baseline for year 2005 was validated with data that more closely represented a busy summer weekend. To provide an accurate comparison between 2035 and 2045 VMT estimates and baseline year 2005 estimates, TRPA staff adjusted a portion of the 2005 inputs and re-ran the 2005 scenario in the updated Travel Demand Model. In particular, staff adjusted the visitor-related inputs by factoring down the visitor occupancy rates for year 2005 used in the original Travel Demand Model to align with the year 2018 visitor occupancy rates based on lodging occupancy data. All other inputs (e.g., employment, residential units) from 2005 were retained. The result of utilizing the updated Travel Demand Model and visitor occupancy rate adjustment was to decrease the daily VMT per capita baseline from approximately 25.2 VMT to approximately 21.59 VMT (TRPA 2020c, 2020f). In consultation with TRPA, CARB expressed support for this approach to the SB 375 analysis for the 2020 RTP/SCS (CARB 2020c).

Significance Thresholds

On October 13, 2016, Placer County APCD adopted revised CEQA thresholds of significance for evaluating whether the GHG emissions of different types of projects would be a cumulatively considerable contribution to climate change (Placer County APCD 2016b). No thresholds of significance for evaluating GHG emissions have been adopted by the El Dorado County AQMD or the State of Nevada. Therefore, the net change in GHG emissions from existing conditions in the Plan Area is compared to the Placer County APCD thresholds, consistent with the air quality analysis in the 2017 RTP/SCS IS/IEC.

Placer County APCD's revised thresholds are supported by Placer County APCD's *California Environmental Quality Act Thresholds of Significance Justification Report* released in September 2016 (Placer County APCD 2016b). Placer County APCD's proposed GHG thresholds reflect the CEQA projects reviewed by Placer County APCD over the last 13 years (2003 to 2015) and the CEQA significance thresholds adopted by other air districts in the Sacramento area. Placer County APCD recommends the following hierarchy of GHG thresholds for determining whether a project's GHG emissions would be cumulatively considerable. No thresholds of significance for evaluating GHG emissions have been adopted by the El Dorado County AQMD or the State of Nevada; therefore, for the 2020 RTP/SCS, the net change in GHG emissions from existing conditions in the Plan Area was evaluated in light of the following Placer County APCD thresholds, consistent with the analysis in the 2017 RTP/SCS IS/IEC:

1. To start, the operational emissions of a land use project should be compared to de minimis level of 1,100 MT of CO₂e per year. If the de minimis level is not exceeded, the project's GHG emissions would be less than cumulatively considerable. No further analysis is necessary.
2. If project emissions exceed the de minimis level but emissions are less than the bright-line threshold of 10,000 MT of CO₂e per year, the operational emissions of a land use project should be compared to the thresholds contained in the efficiency matrix, which provides four efficiency thresholds for use depending on whether the project is rural or urban and residential or non-residential (e.g., 4.5 MT of CO₂e per year per capita and 26.5 MT of CO₂e per year per 1,000 square feet for residential and non-residential land uses in urban areas, respectively) (Placer County APCD 2016). If the applicable efficiency threshold is not exceeded, the project's GHG emissions would be less than cumulatively considerable.
3. If a land use project's construction emissions or a stationary source project's construction and operational emissions exceed the bright-line threshold of 10,000 MT of CO₂e per year, the project's GHG emissions would be cumulatively considerable regardless of the project's GHG efficiency.

CEQA Environmental Checklist

- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Construction Emissions

The types of short-term construction-generated emission activity would generally be the same under the 2020 RTP/SCS as the 2017 RTP/SCS. The differences between the 2017 RTP and the 2045 RTP consist of adding over 40 new minor projects, modifying several projects that remain on the list, and removing projects that have been completed since 2017. New projects under the 2020 RTP/SCS are similar in type to those included in the 2017 RTP/SCS and include construction of bikeways,

trails, sidewalks; installation of complete streets improvements and variable speed signs; improvements to parking management and wayfinding; and operation and maintenance activities for existing roadways and transit, bicycle, and pedestrian facilities. The 2045 RTP would also include the remaining 92 yet-to-be-completed projects as under the 2017 RTP/SCS, some of which are currently being implemented.

The 2020 RTP/SCS would result in construction related GHG emissions associated with several transportation infrastructure projects. One of the two largest infrastructure construction projects in the 2012 RTP, State Route 89/Fanny Bridge Community Revitalization Project, has been approved and construction has been initiated, with two of three traffic circles completed. As discussed in the 2017 RTP/SCS IS/IEC, the project-level analysis of the Route 89/Fanny Bridge concluded that construction-related GHG emissions would be less than significant (see Impact 4.6-1 of the Route 89/Fanny Bridge EIR/EIS/EA [TRPA 2015]). Projects listed in the 2020 RTP/SCS would be constructed at an equivalent or smaller scale than the Route 89/Fanny Bridge Community Revitalization Project, based on current project descriptions and a comparison of anticipated construction costs and project type (TRPA 2020e). As discussed in the 2017 RTP/SCS IS/IEC, although detailed construction information for transportation projects in the RTP is not known at this time, use of heavy-duty equipment, construction worker commute trips, material deliveries, and vendor trips would be involved. These activities would result in GHG emissions that would be finite in duration, but when all the construction projects are considered together over the implementation period of the RTP, construction-related emissions of GHGs could be substantial without environmentally protective policies and/or mitigation measures. However, implementation of Mitigation Measure 3.5-1 from the 2012 RTP/SCS EIR/EIS has occurred via the adoption of TRPA's Best Construction Practices Policy, which provides environmental protections. Projects would have to demonstrate compliance with TRPA's Best Construction Practices Policy as a condition of approval. The policy would require reductions in construction generated GHGs.

The land use scenario envisioned by the 2020 RTP/SCS is similar to that contained in the 2017 RTP/SCS. The regional forecast includes minor changes in development, population demographics, and visitation. This land use scenario, consistent with the 2017 RTP/SCS, concentrates the forecasted growth in population and employment in already urbanized areas. New development under the 2020 RTP/SCS is anticipated to increase through years 2035 and 2045, in keeping with State-mandated housing (Appendix D). These increases would accommodate slight increases to full-time residential population and a greater increase in day and overnight visitors to the Plan Area, which will result in continued and increased use of overnight lodging facilities. Although the 2020 RTP/SCS does not facilitate or propose new residential, commercial, or visitor-serving development and the transportation projects would introduce minimal land use changes, the growth anticipated in this update is less than that analyzed in the 2012 RTP/SCS EIR/EIS. The 2012 analysis anticipated a 2035 population of 60,365 residents in the Lake Tahoe region; however, the current 2020 regional forecast anticipates a 2045 population of 58,041 residents (Appendix D). Therefore, current anticipated population growth is thus less than previously anticipated growth under the 2012 RTP/SCS EIR/EIS. Regional population increase is therefore expected to be consistent with that estimated during previous planning processes in 2012 and 2017. Overall, substantial and adverse impacts from GHG emissions would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

Operational GHG Emissions

Updated GHG emissions modeling results for the 2020 RTP/SCS are summarized in Table 10. No thresholds of significance for evaluating GHG emissions have been adopted by the El Dorado County AQMD or the State of Nevada; therefore, the net change in GHG emissions from existing conditions in the Plan Area is compared to the Placer County APCD de minimis level of 1,100 MT of CO₂e per year, consistent with the air quality analysis in the 2017 RTP/SCS IS/IEC. As shown in Table 10, GHG emissions modeling for the 2020 RTP/SCS indicates a reduction of approximately 77,995 MT of CO₂e as compared to the 2018 baseline. The estimated reduction in mobile source emissions is primarily due to stricter fuel efficiency and vehicle emissions standards such as the Corporate Average Fuel Economy standards that will phase in over the planning period as reflected in EMFAC2017 emission factors. Because emissions would decrease as compared to 2018 baseline conditions, emissions associated with the 2020 RTP/SCS would not exceed Placer County APCD’s recommended de minimis level of 1,100 MT of CO₂e per year, which TRPA has used to evaluate GHG emissions. Therefore, operational GHG emissions associated with the 2020 RTP/SCS would be less than significant and would not be cumulatively considerable, similar to those identified in the 2017 RTP/SCS IS/IEC and less than those identified in the 2012 RTP/SCS EIR/EIS. No new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

Table 10 2020 RTP/SCS Net Change in Daily Basinwide Operational Emissions (2018-2045)

Source	Emissions (MT of CO ₂ e/year)
On-road Mobile Sources ¹	(81,394)
Waterborne Transit ² and Water Taxi Service ³	3,399.1
Total Net Change (2018-2045)	(77,994.9)
Placer County APCD De Minimis Level	1,100
Threshold Exceeded?	No

¹ Emission modeling completed using EMFAC 2017 and CARB’s off-model adjustment factors to account for SAFE Vehicles Rule implementation.

² Waterborne transit emissions were sourced from the 2012 RTP/SCS EIR/EIS.

³ Emission modeling for the North Shore Water Taxi Project Phase 2035 was completed using Harbor Craft, Dredge and Barge Emission Factor Calculator.

() denotes a negative number.

MT = metric tons; CO₂e = carbon dioxide equivalents; APCD = Air Pollution Control District

See Appendix F for EMFAC results and Harbor Craft, Dredge and Barge Emission Factor Calculator results.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- b. *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Construction-Generated Greenhouse Gas Emissions

As discussed under CEQA item a, the types and amount of GHG-generating construction activity under the 2020 RTP/SCS would be mitigated to less-than-significant conditions under the implementation of TRPA's Best Construction Practices Policy and Mitigation Measure 3.5-1 from the 2012 RTP/SCS EIR/EIS. The effectiveness of TRPA's Best Construction Practices Policy is demonstrated in the environmental analysis of the Route 89/Fanny Bridge Community Revitalization Project, one of the largest projects under the 2012 RTP/SCS, which concluded that construction-related GHG emissions would be less than significant. Thus, construction-related emissions of projects under the 2020 RTP/SCS, which are similar in scope to projects in the 2012 RTP/SCS and 2017 RTP/SCS, would not result in a substantial contribution to global climate change and would not conflict with the 2017 Scoping Plan and the GHG reduction target specified SB 32. Thus, the 2020 RTP/SCS would not result in emissions that conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG.

Operational Greenhouse Gas Emissions

The 2012 RTP/SCS EIR/EIS found that the 2012 RTP/SCS would be consistent with SB 375 requirements and California GHG reduction goals, and the 2017 RTP/SCS IS/IEC found that the RTP/SCS would also be SB 375 requirements and California GHG reduction goals. The 2017 RTP/SCS IS/IEC determined that the region would reduce per capita GHG emissions from passenger vehicles by 8.8 percent by 2020 and 5.0 percent by 2035. In November 2018, CARB released an executive order formally accepting TRPA's determination that the 2017 RTP/SCS would meet the region's GHG emission reduction targets (CARB 2018a).

VMT for the California portion of the Lake Tahoe region under the 2020 RTP/SCS were obtained from the TRPA travel demand model (TRPA 2020d). Per capita GHG emissions associated with passenger vehicles for baseline year 2005 were re-calculated for the purposes of this analysis using the updated TRPA Travel Demand Model, which was also used to calculate VMT forecasts for years 2035 and 2045. In consultation with TRPA, CARB expressed support for this approach to the SB 375 analysis for the 2020 RTP/SCS (CARB 2020c).

Mobile-source emissions associated with VMT from automobiles, light-duty trucks were estimated using the SB 375 Scenario Analysis tool in EMFAC2014 to provide a consistent comparison with the SB 375 targets per CARB's guidance (CARB 2019b, Appendix D). An adjustment of 0.17% was made in accordance with the methodology used for the 2017 RTP/SCS. This adjustment was made to account for the change from using EMFAC2011 for the 2012 RTP/SCS to using EMFAC2014 for the 2017 and 2020 RTP/SCS. Results of mobile-source GHG emissions modeling from automobiles and light-duty trucks are summarized below in Table 11. As shown therein, the 2020 RTP/SCS would result in an approximately 12 percent reduction in per capita CO₂ emissions from passenger vehicles by 2035, which would achieve the mandated five percent reduction under SB 375. Because the SB 375 targets are consistent with the objectives of SB 32, the 2020 RTP/SCS is therefore consistent with SB 32.

Table 11 California side Per Capita Carbon Dioxide Emissions : Passenger Vehicles

	2005 Baseline (per SB 375)	2035	2045
Annual Average Daily Total VMT per Capita ¹	21.59	19.94	19.68
GHG Emissions (tons/day)	388.8	345.5	352.9
Population ²	41,338	41,951	43,468
Per Capita Passenger Vehicle GHG Emissions (pounds/person/day)	18.81	16.47	16.24
Percent Change from in Per Capita GHG Emissions from 2005		-12.23%	-13.7%
SB 375 Target		-5%	n/a ³
SB 375 Target Met?		Yes	n/a ³

¹ Source: TRPA 2020c

² Source: Appendix D

³ SB 375 targets have not been adopted for post-2035 years.

See Appendix F for SB 375 calculations.

The 2020 RTP/SCS would implement a suite of transportation improvement projects and facilitate a land use scenario that is consistent with the transportation sustainability goals of the 2017 Scoping Plan. The land use scenario envisioned by the 2020 RTP/SCS concentrates the forecasted growth in population and employment in already urbanized areas to reduce VMT. Corridors and an Active Transportation projects would implement complete street design policies, closing gaps in the trail network, prioritize transit, biking, and walking along Route 89, Sierra Boulevard, Meyers Corridor, U.S. Highway 50 south and east, and Kahle Drive as well as at select locations in Tahoe City and the Nevada portion of the region. In addition to the Corridors projects, Active Transportation projects would increase the number, safety, and connectivity, and attractiveness of biking and walking facilities by adding sidewalks, trails, bike lanes, crosswalks, intersection improvements, pedestrian bridges, and signage throughout the Lake Tahoe region. Furthermore, the 2020 RTP/SCS includes Transit projects designed to maintain, enhance, and expand transit service offered by the two public transit agencies, the Tahoe Transportation District and Tahoe Area Regional Transit and private operators of Transit for the Tahoe Area as well as expand waterborne transit service via water taxis. In conjunction with the Corridors and Active Transportation projects, the Transit projects would increase the availability of low carbon mobility options in the region. The 2020 RTP/SCS also includes a project to fund additional battery electric buses at the Lake Tahoe Community College transfer terminal and to purchase transit buses for the Tahoe Transportation District that may be battery electric, thereby contributing to the 2017 Scoping Plan’s goals of increasing the penetration of zero emission vehicles in non-light-duty sectors and electrifying the transportation sector.

The 2012 RTP/SCS EIR/EIS determined that the 2012 RTP/SCS would result in a net increase in GHG emissions of approximately 36,778 MT of CO₂e per year, and the 2017 RTP/SCS IS/IEC found that the 2017 RTP/SCS would result in a net decrease in GHG emissions of approximately 100,452 MT of CO₂e per year. Although the 2020 RTP/SCS would result in a smaller net decrease in GHG emissions (approximately 77,995 MT of CO₂e per year as show in Table 10) than the 2017 RTP/SCS, emissions would remain substantially lower than those analyzed in the 2012 RTP/SCS EIR/EIS and would still result in a net decrease in GHG emissions compared to baseline conditions. Therefore, the 2020 RTP/SCS would be consistent with the goals of the 2017 Scoping Plan and SB 32 as it would decrease

GHG emissions compared to existing conditions. Impacts would be less than significant, consistent with those identified in the 2012 RTP/SCS EIR/EIS and the 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

TRPA Environmental Checklist

Section 2 – Air Quality

- c. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?*

Similar to the conclusions of the 2017 RTP/SCS IS/IEC, the 2045 RTP program of projects are not of sufficient size to alter the climate of the local project area or the Lake Tahoe Region. Please see the discussion under CEQA items “a” and “b” for an analysis of GHG emissions. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC

NO WITH MITIGATION

This page intentionally left blank.

9 Hazards and Hazardous Materials

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	2012 RTP/SCS EIR/EIS Impact 3.14-1	No	No	No	N/A
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	2012 RTP/SCS EIR/EIS Impact 3.14-1	No	No	No	N/A
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	2012 RTP/SCS EIR/EIS Impact 3.14-1	No	No	No	N/A
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	2012 RTP/SCS EIR/EIS Impact 3.14-2	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	2012 RTP/SCS EIR/EIS Impact 3.14-4	No	No	No	N/A
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	2012 RTP/SCS EIR/EIS Impact 3.13-5	No	No	No	Yes
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	2012 RTP/SCS EIR/EIS Impact 3.14-3	No	No	No	N/A

TRPA Environmental Checklist: Section 10 – Risk of Upset

Will the proposal:

a. Involve a risk of an explosion or the release of hazardous substances including, but not limited to, oil, pesticides, chemicals, or radiation in the event of an accident or upset conditions?	2012 RTP/SCS EIR/EIS Impact 3.14-1	No	No	No	N/A
b. Involve possible interference with an emergency evacuation plan?	2012 RTP/SCS EIR/EIS Impact 3.13-5	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

TRPA Environmental Checklist: Section 17 – Human Health

Will the proposal result in:

a.	Creation of any health hazard or potential health hazard (excluding mental health)?	2012 RTP/SCS EIR/EIS Impact 3.14-1, 3.14-2, 3.14-5	No	No	No	Yes
b.	Exposure of people to potential health hazards?	2012 RTP/SCS EIR/EIS Impact 3.14-1	No	No	No	N/A

Discussion

Construction of transportation and land use projects included in the 2020 RTP/SCS could result in transport of hazardous materials or temporarily expose people and the environment to hazardous conditions. New and modified projects added to the 2020 RTP/SCS that may have hazardous material impacts due to increased construction and ground-disturbing activities include, but are not limited to, the Tahoe City Lakeside Trail Missing Link, Dollar Creek and South Tahoe Greenway shared use trails, segments of the Nevada Stateline to Stateline Bikeway, the Pope Beach bike path, and the Route 89 Class I and Lake Side Phase 2C bike trails. Other projects include safety improvements and complete streets project improvements such as additions of sidewalks along Interstate 50 from Kingsbury Grade to Lake Parkway as well as rehabilitation of roads, bike and pedestrian facilities generally within existing urbanized areas and road right of ways. Projects would also be subject to local jurisdiction safety and hazardous materials standards as well as state and federal regulations.

The 2020 RTP/SCS includes projects aimed at achieving the goals of improving safety and security for all users of the local transportation system and providing efficient transportation network through coordinated operations, system management, technology, monitoring, and targeted investments. Policy 3.5 of the 2020 RTP/SCS promotes design techniques for projects to maximize visibility at vehicular, bicycle, and pedestrian conflict points and encourages increasing safety signage, site distance, and other safety features, as appropriate. Several active transportation projects, including Class I trails, in the 2020 RTP/SCS are aimed at improving public safety by separating pedestrians and bicyclists from roadways. Additionally, Policy 3.4 would support emergency preparedness and response planning, including the development of regional evacuation plans.

CEQA Environmental Checklist

- a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

New and modified projects included in the 2020 RTP/SCS would not be substantially different in terms of geographic location, type of project, or size to those included in the 2012 or 2017 RTP/SCS. In addition, the land use scenario envisioned by the 2020 RTP/SCS is similar to that contained in the 2012 and 2017 RTP/SCS. Similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS could potentially facilitate the transport of hazardous materials on roadways within the Plan Area but would not directly result in a transportation related hazard. All transport of hazardous materials would be required to comply with existing laws and regulations, such as the federal Resource Conservation and Recovery Act (RCRA) and the state Hazardous Waste Control Act and California Vehicle Code. In California, transportation of hazardous materials on roadways is regulated by the California Highway Patrol and Caltrans, and the use of these materials is regulated by California Department of Toxic Substances Control (DTSC). In Nevada, the transportation of hazardous materials on area roadways is regulated by the Nevada Highway Patrol. The use of these materials in Nevada is regulated by Nev-OSHA, and Nevada's Hazardous Waste Management Program regulations. This would ensure that the transport of hazardous materials and the release of hazardous materials would be adequately controlled. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

New and modified projects included in the 2020 RTP/SCS would not be substantially different in terms of geographic location, type of project, or size to those included in the 2012 or 2017 RTP/SCS. In addition, the land use scenario envisioned by the 2020 RTP/SCS is similar to that contained in the 2012 and 2017 RTP/SCS. Similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS would include construction activities associated with the transportation projects could involve the short-term use and storage of hazardous materials (e.g., asphalt, fuel, lubricants, paint) typical of transportation improvement projects (e.g., bicycle and pedestrian trails, shoulder expansion, bridge construction, etc.). As noted in the 2012 RTP/SCS EIR/EIS, several schools are located throughout the Plan Area. Future transportation projects under the 2020 RTP/SCS could be located within 0.25 miles of an existing or proposed school. However, all materials would be used, stored, and disposed of in accordance with applicable federal, state, and local laws, as described above under CEQA items "a" and "b." This would ensure that the handling of hazardous substances within proximity to schools would be adequately controlled. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature,

scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- d. *Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Similar to the 2012 and 2017 RTP/SCS, construction activities for transportation projects associated with the 2020 RTP/SCS may involve construction through, or next to contaminated sites, or sites known to produce hazardous waste materials, leading to disturbance and release of hazardous materials. For example, the Pavement Preservation project from the Route 28/Route 89 Junction to the Nevada State Line would traverse several open and closed leaking underground storage tank (LUST) cleanup sites and cleanup program sites (DTSC 2020; SWRCB 2020). Therefore, this impact would be potentially significant, similar to the 2017 RTP/SCS, and would require implementation of Mitigation Measure 3.14-1 included in the 2012 RTP/SCS EIR/EIS. This measure requires individual projects to consult all known databases of contaminated sites to determine if that project is located on or near a listed site, and to develop an appropriate remediation plan. Additionally, per the requirements of Mitigation Measure 3.14-1 from the 2012 RTP/SCS EIR/EIS, if hazardous areas of project sites cannot be avoided, prior to construction a Phase I Environmental Site Assessment (ESA) will be conducted by a qualified professional and recommendations of this Phase I ESA shall be implemented.

Implementation of Mitigation Measure 3.14-1 from the 2012 RTP/SCS would ensure that all necessary procedures are taken to identify sites that contain potentially hazardous materials. If sites containing hazardous materials are found to be on or near a proposed project, proper precautions would be taken to avoid contamination to construction workers or the environment. Overall, substantial and adverse impacts related to hazardous materials sites would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

Most of the projects included in the 2020 RTP/SCS would not result in safety hazards to people from an airport because they would be located over two miles away from the airport. Additionally, projects that only involve maintenance activities would not include any new structures or residences and therefore would not expose people to safety hazards or excessive noise from airports. However, similar to the 2012 and 2017 RTP/SCS, some new or modified projects included in the 2020 RTP/SCS would result in construction activities in close proximity to the City of South Lake Tahoe Airport. Bike and pedestrian projects west of U.S. Highway 50, as well as the TTD Transit Capital Improvement projects would be close to the South Lake Tahoe Airport.

The three safety concerns addressed in the Lake Tahoe Airport Comprehensive Land Use Plan (CLUP) address height restrictions, noise compatibility, and safety of persons on the ground (CSLT 2007). New or modified 2020 RTP/SCS projects would not result in the construction of tall buildings or structures in the vicinity of the airport that would violate the Airport CLUP airport height restriction policy. In addition, these projects would not introduce new residences close to the Airport or allow more intensive nearby development. Therefore, projects that could potentially expose people to risks from airplanes or airports would comply with the Lake Tahoe Airport CLUP. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Similar to the 2012 and 2017 RTP/SCS, construction of new and modified projects included in the 2020 RTP/SCS could affect emergency services including implementation of an adopted emergency response or evacuation plan. Depending on the timing, location, and duration of construction activities, several of the projects included in the 2020 RTP/SCS, including intersection improvements, roadway and bikeway enhancements, and maintenance activities, could delay emergency vehicle response time or otherwise disrupt delivery of emergency services. By closing off one or more lanes of a roadway, emergency routes could be impaired; causing traffic delays and ultimately preventing access to calls for service. Thus, this impact would be potentially significant and Mitigation Measure 3.13-5 in the 2012 RTP/SCS EIR/EIS would be required. This measure requires TRPA to prepare and implement a traffic control plan (TCP) such that construction activities are coordinated with affected agencies to ensure emergency access is not substantially deteriorated.

Additionally, pursuant to TRPA Code of Ordinances Section 22.7.6, *Traffic Mitigation*, construction of transportation and land use projects under the 2020 RTP/SCS requiring lane or intersection closures of a state or federal highway for more than one hour, or the closure of U.S. Highway 50 at any point between the South Y and Kingsbury Grade for any period of time, would be required to submit a traffic analysis for review that includes measures necessary to mitigate all traffic impacts to a level consistent with TRPA thresholds. Adherence to this standard would reduce potential for construction to temporarily impair implementation of an emergency response or evacuation plan.

As described above under the Discussion, the 2020 RTP/SCS includes safety and complete streets project improvements such as additions of sidewalks along U.S. Highway 50 from Kingsbury Grade to Lake Parkway as well as rehabilitation of roads, bike and pedestrian facilities generally within existing urbanized areas and road right of ways. These projects are consistent with Policy 3.4 of the 2020 RTP to support emergency preparedness and response planning. Further, adherence to Mitigation Measure 3.13-5 would reduce short-term impacts to the implementation emergency response or evacuation plan because individual projects would be required to prepare a TCP such that construction activities are coordinated with affected agencies to ensure emergency response times are not substantially deteriorated. Overall, substantial and adverse impacts related to emergency response or evacuation would remain less than significant with implementation of existing TRPA policies and mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar

to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- g. *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

The 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC discussed the potential for transportation and land use projects to expose people or structures to significant risk of loss, injury, or death involving wildland fires. This previous environmental analysis concluded that although some level of construction activities would take place, these activities would have no effect on fuel loading or defensible space. Similar to the 2012 and 2017 RTP/SCS, new and modified projects under the 2020 RTP/SCS would be required to adhere to the policies and standards for maintaining defensible space and reducing fuel load. Specifically, Natural Hazards, Goal 1, Policy 3 of the Land Use Element of TRPA's Regional Plan that encourages the use of fire-resistant materials and fire preventative techniques when constructing structures, especially in the highest fire hazard areas. This policy also requires that forest fuels are managed to be consistent with state laws and other goals and policies of the Regional Plan. TRPA Code of Ordinances Section 61.3.6(D), *Vegetation Management to Prevent the Spread of Wildfire*, requires that in areas of significant fire hazard, as determined by local, state, or federal fire agencies, flammable or other combustible vegetation shall be removed, thinned, or manipulated in accordance with local and state law.

As development continues throughout the Plan Area, projects would be required to consider regional fire hazards and include measures to ensure that defensible space is maintained, and excessive fuel is reduced. In California, Public Resources Code 4291 requires 100 feet of defensible space around homes in high fire risk areas. Additionally, in Washoe County, Nevada, all projects requiring a building permit must establish and maintain defensible space surrounding structures in accordance with the 2018 International Wildland Urban Interface Code. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe wildland fire impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 10 – Risk of Upset

- a. *Will the proposal involve a risk of an explosion or the release of hazardous substances including, but not limited to, oil, pesticides, chemicals, or radiation in the event of an accident or upset conditions?*

Please refer to CEQA items “a,” “b,” and “c” above, for a discussion of the potential risk of an explosion or release of hazardous substances. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- b. *Will the proposal involve possible interference with an emergency evacuation plan?*

Please refer to CEQA item “f” above, for a discussion of interference with emergency evacuations plans. Adherence to Mitigation Measure 3.13-5 would reduce short-term impacts to the implementation emergency response or evacuation plan because individual projects would be required to prepare a TCP such that construction activities are coordinated with affected agencies to ensure emergency response times are not substantially deteriorated. Overall, substantial and adverse impacts related to emergency response or evacuation would remain less than significant with implementation of existing TRPA policies and mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

Section 17 – Human Health

- a. *Will the proposal result in creation of any health hazard or potential health hazard (excluding mental health)?*

The 2012 and 2017 RTP/SCS discussed the risk of vector-borne diseases that pose potential public health hazards to people living in the Plan Area. Various environmental factors such as climate, topography, vegetation, and standing water can influence the extent and duration of available breeding habitat for mosquito populations, which act as vectors for the West Nile virus and other illnesses. Vector control districts with jurisdiction in the Plan Area periodically use truck-mounted fogging units to apply insecticides as an ultra-low-volume spray to control adult mosquito populations.

New and modified projects under the 2020 RTP/SCS could include new treatment wetlands or detention basins for TMDL projects within the Plan Area. Additional wetlands could serve as potential breeding grounds for mosquito populations. However, these projects would be easily accessible for vector control strategies and would not conflict with the ability of county and/or state agencies to conduct appropriate mosquito abatement and control measures and programs

throughout the Plan Area. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS,

Similar to the 2012 and 2017 RTP/SCS, implementation of the 2020 RTP/SCS would not result in any change with regard to allowable uses of pesticides in the Plan Area. Thus, by maintaining access for vector control agencies to conduct mosquito control and abatement measures, impacts to public health associated with mosquito-borne illnesses would be less than significant.

NO

b. Will the proposal result in exposure of people to potential health hazards?

Please refer to item “a” of the *TRPA Environmental Checklist-Human Health* above, for a discussion of the exposure of people to potential health hazards, specifically those related to vector-borne diseases.

NO

This page left intentionally blank.

10 Hydrology and Water Quality

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	2012 RTP/SCS EIR/EIS Impacts 3.8-1, 3.8-2, 3.8-3, 3.8-4	No	No	No	N/A
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	2012 RTP/SCS EIR/EIS Impact 3.8-7	No	No	No	N/A
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:					
(i) Result in substantial erosion or siltation on- or off-site;	2012 RTP/SCS EIR/EIS Impact 3.8-5	No	No	No	N/A
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	2012 RTP/SCS EIR/EIS Impact 3.8-5	No	No	No	N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	2012 RTP/SCS EIR/EIS Impact 3.8-2	No	No	No	N/A
(iv) Impede or redirect flood flows?	2012 RTP/SCS EIR/EIS Impact 3.8-6	No	No	No	N/A
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	2012 RTP/SCS EIR/EIS Impact 3.7-2	No	No	No	N/A
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	2012 RTP/SCS EIR/EIS Impact 3.2-2	No	No	No	N/A

TRPA Environmental Checklist: Section 3 – Water Quality

Will the proposal result in:

a. Changes in currents, or the course or direction of water movements?	2012 RTP/SCS EIR/EIS Impact 3.8-5	No	No	No	N/A
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff so that a 20 year 1 hour storm runoff (approximately 1 inch per hour) cannot be contained on the site?	2012 RTP/SCS EIR/EIS Impact 3.8-2	No	No	No	N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?	
c.	Alterations to the course or flow of 100-year flood waters?	2012 RTP/SCS EIR/EIS Impact 3.8-6	No	No	No	N/A
d.	Change in the amount of surface water in any water body?	2012 RTP/SCS EIR/EIS Impact 3.8-2	No	No	No	N/A
e.	Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	2012 RTP/SCS EIR/EIS Impact 3.8-2	No	No	No	N/A
f.	Alteration of the direction or rate of flow of ground water?	2012 RTP/SCS EIR/EIS Impact 3.8-7	No	No	No	N/A
g.	Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	2012 RTP/SCS EIR/EIS Impact 3.8-7	No	No	No	N/A
h.	Substantial reduction in the amount of water otherwise available for public water supplies?	2012 RTP/SCS EIR/EIS Impact 3.13-2	No	No	No	N/A
i.	Exposure of people or property to water related hazards such as flooding and/or wave action from 100-year storm occurrence or seiches?	2012 RTP/SCS EIR/EIS Impact 3.7-2, 3.8-6	No	No	No	N/A
j.	The potential discharge of contaminants to the	2012 RTP/SCS	No	No	No	N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
groundwater or any alteration of groundwater quality?	EIR/EIS Impact 3.8-7				
k. Is the project located within 600 feet of a drinking water source?	N/A	No	No	No	N/A

Discussion

As in the 2012 and 2017 RTP/SCS, implementation of the 2020 RTP/SCS would help the Plan Area meet the Lake Tahoe Maximum Daily Load Program (TMDL) Requirements by incorporating water quality improvements in projects. Since roadway runoff from the urban uplands and atmospheric nitrogen deposition from vehicle emissions are major contributors to pollutant loading, the 2020 RTP/SCS has an important role to play in achieving the TMDL. Active transportation projects proposed under the 2020 RTP/SCS, such as the Tahoe Valley Greenbelt, include water quality enhancements such as improving existing drainage systems to spread, treat, infiltrate and retain flows from roadways, commercial areas, and other high priority or urbanized areas. Additionally, several shared use and complete streets projects in 2020 RTP/SCS include source control, conveyance, and treatment facilities for stormwater runoff as well as improvements to address urban stormwater quality and flooding.

New and modified projects in the 2020 RTP/SCS that may impact hydrological resources or water quality by introducing new construction or ground-disturbing activities include, but are not limited to, the North Shore Water Taxi Project, the Tahoe City Lakeside Trail Missing Link, Dollar Creek and South Tahoe Greenway shared use trails, segments of the Nevada Stateline to Stateline Bikeway, the Pope Beach Bike Path, and the Route 89 Class I and Lake Side Phase 2C bike trails. Other projects include safety improvements and complete streets project improvements such as additions of sidewalks along U.S. Highway 50 from Kingsbury Grade to Lake Parkway as well as rehabilitation of roads, bike, and pedestrian facilities generally within existing urbanized areas and road right of ways. Projects would be subject to local jurisdiction water quality standards and state and federal regulations. The potential for changes in the 2020 RTP/SCS to result in impacts related to water quality and hydrology are discussed below.

All projects under the 2020 RTP/SCS must comply with Chapter 60 of the TRPA Code of Ordinances which includes discharge limits for surface runoff and discharge to groundwater (Table 3.8-3 of the TRPA Code), prohibition of certain types of watercraft, snow removal and disposal requirements and required installation and maintenance of BMPs. In accordance with Chapter 60 and TRPA's BMP Handbook, temporary BMPs are required on construction sites and should be maintained throughout the construction period. Permanent BMPs are required for new and existing development and infrastructure. Infiltration facilities must be designed to accommodate a 20-year one-hour storm, per the BMP Handbook. Drainage conveyances through a parcel must be designed

for at least a 10- year, 24-hour storm. Conveyances through an SEZ must be designed for a minimum 50-year storm.

The Lake Tahoe Total Maximum Daily Load (TMDL) is a science-based strategy to restore the historic clarity of Lake Tahoe over 65 years (Lahontan & NDEP 2010a). A TMDL identifies the pollutants of concern, and the load of each pollutant a waterbody can tolerate and still achieve the desired standards. Transportation infrastructure and road maintenance projects identified in the RTP/SCS help achieve the TMDL by preventing fine sediment from entering waterways. While the funding sources and funding mechanisms for 2020 RTP/SCS deferred maintenance projects are slightly different than the 2017 RTP/SCS, the total amount allocated is similar and will achieve similar benefits to water quality.

Floodplain management under Chapter 35 requires that TRPA review development in 100-year floodplains, as defined by the Federal Emergency Management Agency or where TRPA has reason to believe that a flood hazard may exist. The TRPA Code prohibits development, grading or filling of lands within 100-year floodplains with certain exceptions, including specific public outdoor recreation facilities, public health or safety facilities, access to buildable sites across a floodplain, and erosion control projects or water quality control facilities when it can be proven there are no viable alternatives, and all potential impacts can be minimized.

Regulations include protection of such resources in project areas in which they are known or suspected. Chapter 67 also provides for consultation with state historical agencies as well as the Washoe Tribe. Additionally, Standard 33.3.7 in Chapter 33 (Grading and Construction, Section 33.3, Grading Standards) addresses discovery of historical resources. Projects would also be subject to local jurisdiction cultural resource protection standards as well as state and federal regulations.

CEQA Environmental Checklist

- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The TRPA Governing Board adopted Resolution 82-11 in August of 1982, establishing water quality threshold standards for six indicator categories including (1) Lake Tahoe pelagic (deep) waters, (2) Lake Tahoe littoral (nearshore) waters, (3) tributaries, (4) direct surface runoff and storm water discharge to surface waters, (5) stormwater discharge to groundwater, and (6) other lakes (i.e., lakes in the Tahoe Region other than Lake Tahoe). Resolution 82-11 sets out numerical and management standards for water quality in the Plan Area. The TRPA Code of Ordinances contains a range of requirements intended to help achieve water quality threshold standards, goals, and policies. Chapter 60 of the TRPA Code of Ordinances is the primary chapter directed at water quality and the installation of BMPs. Depending on specific locations of projects, development under the 2020 RTP/SCS could result in short-term and long-term impacts to water quality including the violation of water quality standards or waste discharge requirements, or otherwise degrade surface or groundwater quality.

Short-term adverse impacts to surface or groundwater quality could occur during the construction periods of individual improvement projects because areas of disturbed soils would be highly susceptible to water erosion and downstream sedimentation. This impact is of particular concern where projects are located on previously contaminated sites. Construction activities typically involve vegetation removal, grading, excavation, and temporary stockpiling of soils, all of which could

expose soils to wind and water erosion and potentially transport pollutants to surface water bodies, particularly during storm events. In addition, construction activities involve on-site staging of construction equipment and vehicles, as well as construction-related vehicle trips. Fuels and other construction related chemicals could be accidentally spilled, leaked, or could otherwise be discharged into drainages. If pollutants reach drainages, they could ultimately be discharged to Lake Tahoe.

Similar to the 2012 and 2017 RTP/SCS, any new development or redevelopment project would be required to comply with existing TRPA, federal, and state regulations pertaining to the protection of water quality from construction discharges. Temporary construction BMPs that may be required through existing regulations, such as Chapter 33 of the TPRA Code of Ordinances, would include but not be limited to:

- Temporary erosion control BMPs (e.g., silt fencing, fiber rolls, drain inlet protection) installed and maintained to prevent the transport of earthen materials and other waste from a construction site.
- Tree protection fencing installed around trees that are to remain in place throughout construction.
- Mandatory pre-grading inspections by regulatory agencies at the construction site to ensure proper installation of the temporary construction BMPs prior to the initiation of construction activities.
- Requirements to limit the area and extent of all excavation to avoid unnecessary soil disturbance.
- Requirements to winterize construction sites by October 15 to reduce the water quality impacts associated with winter weather. Winterization typically includes installation of erosion controls, vegetation protection, removal of construction debris, site stabilization, and other measures.
- Dust control measures to prevent transport of materials from a project site into any surface water or drainage course. Dust control measures typically include sweeping, watering, covering of disturbed soils and stockpiles, vehicle washing, and other measures.
- Requirements to remove surplus or waste earthen materials from project sites, as well as requirements to stabilize and protect stockpiled material.
- Stabilization of drainage swales disturbed by construction activities with appropriate soil stabilization measures (e.g., revegetation, rock armoring) to prevent erosion.
- Temporary BMPs to capture and contain pollutants from fueling operations, fuel storage areas, and other areas used for the storage of hydrocarbon-based materials. These may include spill prevention plans and other measures.
- Temporary BMPs to prevent the tracking of earthen materials and other waste materials from project sites to offsite locations, including stabilized points of entry/exit for construction vehicles/equipment, designated vehicle/equipment rinse stations, and sweeping operations.
- Regular inspection and maintenance of temporary BMPs.

Additionally, all construction projects in California with greater than one acre of disturbance are required, by LRWQCB in advance of the construction, to prepare a SWPPP pursuant to the NPDES Phase II Stormwater Program. In Nevada, projects are required to comply with the NDEP Stormwater General Permit which also includes a requirement for the preparation and implementation of a SWPPP. A project-specific SWPPP describes the site, construction activities, proposed erosion and sediment controls, means of waste disposal, maintenance requirements for

temporary BMPs, and management controls for potential pollutant sources other than stormwater runoff. Water quality controls outlined in a SWPPP must be consistent with TRPA requirements, the federal antidegradation policy, and maintain designated beneficial uses of Lake Tahoe. Stormwater quality sampling and reporting may also be required on a project-specific basis.

Any proposed project and associated construction, under the 2020 RTP/SCS would be subject to existing laws and regulations requiring erosion and sediment controls, implementation and maintenance of temporary construction BMPs, waste control measures, and management controls for stormwater runoff. Because regulatory protections are in place to minimize erosion and transport of sediment and other pollutants during construction, and appropriate project-specific measures would be defined to secure necessary permits and approvals, construction related impacts would be minimized. Because of the requirements to comply with all applicable state, federal, local, and TRPA regulations pertaining to protection of surface and groundwater water quality from construction related discharges, this impact would be less than significant.

Certain transportation improvements, such as road widening and expansion, would increase overall impervious surface area throughout the Plan Area. These projects may generate significant adverse impacts to surface or groundwater water quality. Pollutants and chemicals associated with urban activities would run off new roadways and other impervious surfaces flowing into nearby bodies of water during storm events. These pollutants would include but are not limited to heavy metals from auto emissions, oil, grease, debris, and air pollution residues. Such contaminated urban runoff may remain largely untreated, thus resulting in the incremental long-term degradation of water quality.

The 2020 RTP/SCS includes several operations and maintenance improvement policies and projects aimed at improving water quality in the region. The Tahoe Valley Greenbelt includes water quality enhancements such as improving existing drainage systems to spread, treat, infiltrate, and retain flows from roadways, commercial areas, and other high priority or urbanized areas. Additionally, several shared use and complete streets projects included in the 2020 RTP/SCS include source control, conveyance, and treatment facilities for stormwater runoff as well as improvements to address urban stormwater quality and flooding. Similar to the 2012 and 2017 RTP/SCS, any new development or redevelopment project would be required to comply with existing TRPA, federal, and state regulations pertaining to the protection of surface and ground water quality. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur to water quality related to construction beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Similar to the 2012 and 2017 RTP/SCS, development under the 2020 RTP/SCS would introduce new impervious surfaces which could affect groundwater supplies by reducing groundwater recharge potential and thus, impede sustainable groundwater management. However, as described above under CEQA item "a," projects that disturb at least one acre would comply with the NPDES Construction General Permit by implementing BMPs to maintain or replicate the pre-development hydrologic regime. Implementation of required BMPs would minimize impacts related to

groundwater recharge. Refer to CEQA item “e” below, for a discussion of groundwater management in the Plan Area. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

Construction activities could expose soils to wind and water erosion and potentially transport pollutants to surface water bodies, particularly during storm events. Additionally, transportation and land use projects proposed under the 2020 RTP/SCS would result in an increase in impervious surfaces in the region, potentially resulting in erosion or siltation on- or off-site. However, as described above under CEQA item “a,” projects would comply with erosion control systems and construction BMPs per the NDPES permit. Compliance with these requirements would ensure that stormwater would be captured and retained on-site and would minimize the risks of erosion or siltation on- or off-site. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Similar to the 2012 and 2017 RTP/SCS transportation projects that would require work outside of existing paved rights-of-way, such as shared use and bike paths, could alter existing drainage patterns by introducing new impervious surfaces and redirecting flow. However, as described above under CEQA item “a,” projects would comply with erosion control systems and construction BMPs per the NDPES permit. Compliance with these requirements would ensure that stormwater would be captured and retained on-site and would minimize the risks flooding on- or off-site during construction.

Construction of stormwater-control projects would control and treat runoff from both existing highways and roadways and from new or increased impervious surfaces resulting from transportation projects in the 2020 RTP/SCS. The projects would enhance the timing of peak flows (i.e., detain and attenuate the peak flows) and reduce runoff volumes (i.e., by including infiltration features). For infrastructure projects that involve stormwater runoff, regulatory requirements in the Tahoe Region mandate infiltration of 20-year, one-hour storm events and the design and implementation of permanent BMPs and Low Impact Development techniques including pervious pavement, vegetated swales, and detention basins. Installation of drainage features with the

transportation projects that meet these requirements would control and detain stormwater, treat sediment loads, and infiltrate a considerable portion of total runoff volume. As a result, new transportation infrastructure improvements and land use projects associated with the 2020 RTP/SCS would be designed in a manner that does not increase runoff or result in on- or off-site flooding. Additionally, as described above under CEQA item “a,” transportation and land use projects would comply with stringent LRWQCB requirements for stormwater and erosion control and existing NPDES permits and increases to adverse runoff and erosion impacts would be avoided, where feasible, and otherwise minimized. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Similar to the 2012 and 2017 RTP/SCS, transportation projects that would require work outside of existing paved rights-of-way, such as shared use and bike paths, could alter existing drainage patterns by introducing new impervious surfaces. However, as described above under CEQA item “a,” projects would comply with erosion control systems and construction BMPs per the NPDES permit. Compliance with these requirements would ensure that stormwater would be captured and retained on-site and would minimize the risks excess stormwater in the local stormwater drainage system.

Construction of stormwater-control projects would control and treat runoff from both existing highways and roadways as well as new infrastructure and from new or increased impervious surfaces resulting from new and modified transportation and land use projects in the 2020 RTP/SCS. New transportation infrastructure improvements and land use projects associated with the 2020 RTP/SCS would be designed to retain runoff. This would ensure that stormwater drainage systems’ capacities are not exceeded, nor would they contribute sources of polluted runoff. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC

LESS THAN SIGNIFICANT IMPACT

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

The 2020 RTP/SCS plans new development, redevelopment, and restoration activities. However, Goal 1, Policy 2 of the Natural Hazards Subelement of the 1987 TRPA Regional Plan prohibits new

development, grading, and filling of lands within the 100-year flood plain and in the area of wave run-up. Similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS does not propose changes to this policy. This policy also requires public utilities, transportation facilities, and other necessary public uses located in the 100-year flood plain and wave run-up areas to be constructed and maintained to prevent damage from flooding and to not cause flooding. This policy would be preserved in the 2020 RTP/SCS. Any projects in the 2020 RTP/SCS would be required to comply with Federal Emergency Management Agency regulations, which mandate that no development is to proceed within the 100-year regulatory floodplain if it could increase the flood elevation by one foot or more and no development is allowed within 100-year floodways. Additionally, both Caltrans and the Nevada Department of Transportation require that projects complete a hydraulic analysis for projects intercepting a waterway or encroaching upon a floodplain. Therefore, with adherence to federal, state and TRPA regulations, new transportation and land use projects under the 2020 RTP/SCS would not result in new flooding issues or allow for the exacerbation of existing flooding issues by impeding or redirecting flows. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Refer to item “c. (iv)” above, for a discussion of flood hazards. Flood hazards such as tsunami and seiche waves are generally associated with seismic activity such as earthquakes. Due to the location of the Plan Area, future projects associated with the 2020 RTP/SCS would not be at risk of inundation due to a tsunami. Modelling of potential earthquakes occurring beneath Lake Tahoe indicate that a fault rupturing seismic event of magnitude 7.0 could trigger a seiche with waves of up to 30 feet high along the shoreline of Lake Tahoe. However, the probability of an earthquake strong enough to cause a seiche in the Plan Area is relatively low: only three to four percent in 50 years (Ichinose et al. 2000). Therefore, effects from a seiche wave are unlikely to occur. Additionally, because of the mountainous terrain in the Plan Area, there is a relatively low density of 100-year flood hazard zones. As discussed above under CEQA item “c. (iv),” any projects constructed under the 2020 RTP/SCS would be required to comply with the multi-layered federal, state, regional and TRPA regulations to protect public safety, property and the environment from proposed construction in the 100-year floodplain.

As described above in Section 9, *Hazards and Hazardous Materials*, and similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS could potentially facilitate the transport of hazardous materials on roadways within the Plan Area but would not directly result in a transportation related hazards. All transport of hazardous materials would be required to comply with existing laws and regulations, such as the federal RCRA and the state Hazardous Waste Control Act and California Vehicle Code. This would ensure the transport of hazardous materials and the release of pollutants would be adequately controlled in the unlikely event of project inundation. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and

would incorporate site specific design and adhere to relevant regulation controlling pollutants, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The Water Quality Management Plan or the Lake Tahoe Region (208 Plan) was prepared by TRPA in compliance with Section 208 of the federal CWA. The 208 Plan is considered a living document and includes by reference the most recent version of the Best Management Practices Handbook, the Stream Environment Zone Protection and Restoration Program, and the Capital Improvements Program for Erosion and Runoff Control. The 208 Plan identifies pollution sources, control needs, and management practices to improve water quality. The 208 Plan management programs pertain to urban runoff and erosion, airborne nutrients, waste management, natural area management, and water quality issues in Lake Tahoe and the Shorezone. To determine if water quality goals are attained and maintained, water quality programs require continuous scientific monitoring of environmental conditions related to the threshold standards for pelagic Lake Tahoe, littoral Lake Tahoe, tributary streams, surface runoff, groundwater, land coverage, and SEZs.

The Lake Tahoe TMDL was established to meet the requirements of Section 303(d) of the CWA. Implementation of a TMDL plan is required in California pursuant to the California Water Code, Section 13242, which also requires that the LRWQCB incorporate TMDLs into its local Water Quality Control Plan. California and Nevada adopted TMDL requirements for Lake Tahoe in August 2011.

Similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS would not propose changes that would conflict with these existing plans. In light of the changes in the approach to managing water quality, the unique arrangement for planning, and the new requirements, the 208 Plan was updated in 2013 to better serve as a living and relevant framework within which the distinct but interrelated programs and efforts at the various government levels work in a coordinated and complementary fashion as the major components of the Plan Area's water quality management system. Each of the major individual components has been approved and may be amended in accordance with the required processes associated with that component. As such any updates to components included by reference would reflect modifications to land use restrictions wetland protection and restoration regulations, or other water quality-related aspects of the goals and policies adopted as part of the 2020 RTP/SCS.

Additionally, TRPA supports implementation of the TMDL regulation through its mitigation fund release policies and by facilitating public/private partnerships in the development of water quality improvements projects identified in the Environmental Improvement Program. Therefore the 2012 RTP/SCS EIR/EIS concluded that implementation of transportation projects would not conflict with or obstruct implementation of the 208 Plan or TMDL in accordance with the Water Quality Control Plan. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 3 – Water Quality

a. Will the proposal result in changes in currents, or the course or direction of water movements?

The 2020 RTP/SCS would involve development of transportation and land use projects. As described under CEQA item “c” above, while there is potential for alteration to drainage patterns, projects would comply with erosion control systems and construction BMPs per the NDPES permit. Compliance with these requirements would ensure that projects would not result in changes to currents, or the course or direction of water movements. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

b. Will the proposal result in changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff so that a 20-year 1 hour storm runoff (approximately 1 inch per hour) cannot be contained on the site?

Refer to the discussion under CEQA items “a” and “c” regarding drainage patterns and the rate of surface water runoff. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

c. Will the proposal result in alterations to the course or flow of 100-year flood waters?

Refer to the discussion under CEQA item “c.(iv)” above, for a discussion of alterations of flood flows within a 100-year flood plain. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

d. Will the proposal result in change in the amount of surface water in any water body?

Refer to CEQA item “a” above for a discussion of impacts to surface water. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- e. *Will the proposal result in discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen, or turbidity?*

Refer to CEQA item “a” above for a discussion of surface water quality. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- f. *Will the proposal result in alteration of the direction or rate of flow of ground water?*

Refer to CEQA items “b” and “e” above, for a discussion of groundwater. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- g. *Will the proposal result in change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?*

Refer to CEQA items “b” and “e” above, for a discussion of groundwater availability. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- h. *Will the proposal result in substantial reduction in the amount of water otherwise available for public water supplies?*

Water used for transportation projects would be limited to that needed for construction and site-specific improvements such as restrooms at trailheads. These projects are not expected to require an excess amount of water that would substantially reduce the public water supply. Some projects in the 2020 RTP/SCS may include long-term water supply for project elements including toilets, sinks, spigots, and stormwater facilities and maintenance activities. However, Chapter 32.4 of the TRPA Code of Ordinances requires that basic water service requirements for projects proposing a new structure, reconstruction, or expansion of an existing structure, designed for human occupancy must have adequate water rights and water supply systems. The public water supply in the Tahoe Region is drawn primarily from groundwater. Refer to items “b” and “e” above and Section 19, *Utilities and Service Systems*, for a discussion of groundwater supplies for transportation and land use projects proposed under the 2020 RTP/SCS. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and adherence to existing TRPA Code regulations, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- i. Will the proposal result in exposure of people or property to water related hazards such as flooding and/or wave action from 100-year storm occurrence or seiches?*

Refer to CEQA items “c.(iv)” and “d” above, for a discussion of hazards related to flooding from a 100-year storm or seiche. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- j. Will the proposal result in the potential discharge of contaminants to the groundwater or any alteration of groundwater quality?*

Refer to CEQA item “a” for a discussion of potential discharge of contaminants to groundwater or an alteration of groundwater quality. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- k. Will the proposal result in the project located within 600 feet of drinking water sources?*

All projects proposed under the 2020 RTP/SCS would be subject to the provisions for Source Water Protection described in of Chapter 60.3, of the TRPA Ordinance Code, which requires a 600-foot protection zone around all known drinking water sources. Specifically, Section 60.3.3(C)(1), requires a fixed protection zone of 600 feet around wells, lake intakes, and springs assessed by TRPA, and Section 60.3.1(D) requires a review of proposed possible contaminating activities located in these source water protection zones. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

11 Land Use and Planning

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

i. Physically divide an established community?	2012 RTP/SCS EIR/EIS Impact 3.2-1	No	No	No	N/A
m. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	2012 RTP/SCS EIR/EIS Impact 3.2-2	No	No	No	Yes

TRPA Environmental Checklist: Section 8 – Land Use

Will the proposal:

n. Include uses which are not listed as permissible uses in the applicable Plan Area Statement, adopted Community Plan, or Master Plan?	2012 RTP/SCS EIR/EIS Impact 3.2-2	No	No	No	N/A
o. Expand or intensify an existing non-forming use?	2012 RTP/SCS EIR/EIS Impact 3.2-2	No	No	No	N/A

Discussion

For the Plan Area, land use and development patterns established in the late 1960s and codified in the late 1980s continue to inform planning policies and the processes and procedures for development allocations in the current planning climate. TRPA established thresholds in the early 1980s that provide for moderate growth and set allocations for residential, commercial, and tourist-related development.

Goals and policies discussed in the 2012 RTP/SCS EIR/EIS and the 2017 RTP/SCS IS/IEC continue to inform the 2020 RTP/SCS, including improving connectivity between and mobility in the Lake Tahoe Region communities. New projects include active transportation trails and amenities that would supplement the existing trail network, continued complete streets and parking management programs under the Corridor projects, roadway maintenance that includes repaving and snowplowing, and implementation of new safety technologies that will aid in traffic and parking management.

CEQA Environmental Checklist

a. Would the project physically divide an established community?

As with the 2012 and 2017 RTP/SCS, a goal of the 2045 update is to improve mobility and connectivity and to enhance the environmental quality of the area to promote visitor and community experiences and economic vitality. New projects in the 2020 RTP/SCS do not include any new roadways or structures that would divide an established community, that have not been previously analyzed⁷. Many projects would increase connectivity through implementation of complete streets, new trails, and transit. The 2045 SCS includes a land use plan similar to the 2012 and 2017 plans where most development would occur in community centers, which would improve access to services and reduce automobile dependency. Since projects under the 2020 RTP/SCS would continue the same development patterns and would not divide communities in the Plan Area, impacts would be less than significant. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The 2020 RTP/SCS would continue the same land use planning strategies and patterns as analyzed in 2012 and 2017. Limited allocations and concentrated development patterns would continue in defined community centers, continuing the development pattern and land use compatibility policies analyzed in the 2012 EIR/EIS and verified in the 2017 IS/IEC. The 2017 IS/IEC found that proposed projects would be like those analyzed in the 2012 EIR/EIS and the same is true of those proposed under the 2020 RTP/SCS. Projects included in the 2020 RTP/SCS may conflict with land uses in a Recreation Area in an area plan or a master plan, but mitigation included in the 2012 EIR/EIS would reduce this impact. Mitigation Measure 3.2-2 in the 2012 EIR/EIS requires that any development involving commercial, residential, tourist accommodation uses or subdivision in a Recreation Area within an area plan or master plan only be approved if it results in a development pattern compatible with recreation district uses, does not induce substantial growth in the area, and does not conflict with environmental policies or regulations analyzed in the area or master plans (TRPA 2012). Overall, substantial and adverse impacts to consistency with land use plans would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS

⁷ The U.S 50 South Shore Community Revitalization Project was evaluated in the 2017 RTP and under a project specific EIS/EIR. In that analysis, impacts to land use and community were analyzed and mitigation required.

and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

TRPA Environmental Checklist

Section 8 – Land Use

- a. *Will the proposal include uses which are not listed as permissible uses in the applicable Plan Area Statement, adopted Community Plan, or Master Plan?*

The 2017 RTP/SCS IS/IEC found that proposed projects would be similar to those analyzed in the 2012 EIR/EIS and the same is true of those proposed under the 2020 RTP/SCS. These include limited development of recreational uses, connectivity projects, roadway and parking facilities maintenance and operation, and implementation of new technologies that aid in traffic safety and parking management. Prior to permitting transportation projects that involve land use changes, local jurisdictions will have the opportunity for discretionary review of site specific design and mitigation to ensure no conflict occurs with other planning documents. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- b. *Will the proposal expand or intensify an existing non-conforming use?*

The 2017 IS/IEC found that proposed projects would be like those analyzed in the 2012 EIR/EIS and the same is true of those proposed under the 2020 RTP/SCS. These include limited development of recreational uses, connectivity projects, roadway and parking maintenance and operation, and implementation of new technologies that aid in traffic safety and parking management. Non-conforming uses are not proposed under the 2020 RTP/SCS. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

This page intentionally left blank.

12 Mineral Resources

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

p. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	2012 RTP/SCS EIR/EIS Section 5.1.3	No	No	No	N/A
q. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	2012 RTP/SCS EIR/EIS Section 5.1.3	No	No	No	N/A

TRPA Environmental Checklist: Section 9 – Natural Resources

Will the proposal result in:

r. A substantial increase in the rate of use of any natural resources?	2012 RTP/SCS EIR/EIS Impacts 3.10-2, 3.13-2	No	No	No	N/A
s. Substantial depletion of any non-renewable natural resource?	2012 RTP/SCS EIR/EIS Impacts 3.10-2, 3.13-2	No	No	No	N/A

Discussion

The 2012 EIR/EIS includes impacts to mineral resources in Section 5.1.3, *Effects Found Not to be Significant* as there are no identified mineral resource recovery sites in the Plan Area. Projects under the 2020 RTP/SCS, like those in the 2017 RTP/SCS, would result in more efficient use of natural resources through transportation network enhancements and infrastructure improvements.

CEQA Environmental Checklist

- a. *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

There are no mineral resource recovery sites in the Plan Area (TRPA 2012). Therefore, projects listed in the 2020 RTP/SCS would not result in the loss of availability of a known mineral resource. There would be no impact. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO IMPACT

- b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

There are no mineral resource recovery sites in the Plan Area (TRPA 2012). Therefore, projects listed in the 2020 RTP/SCS would not result in the loss of availability of a locally important mineral resource recovery site. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO IMPACT

TRPA Environmental Checklist

Section 9 – Natural Resources

- a. *Will the proposal result in a substantial increase in the rate of use of any natural resources?*
b. *Will the proposal result in substantial depletion of any non-renewable natural resource?*

Proposed projects included in the 2020 RTP/SCS are similar in nature, scale, and location, to those analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. They would include active transportation projects, implementation of complete streets and parking facility improvements, and operations and maintenance projects that improve mobility throughout the Plan Area. A discussion of energy and resource use for proposed projects is provided in Section 6, *Energy*. As with the 2012 EIR/EIS and the 2017 IS/IEC, specific project implementation would not result in increased rate of use or substantial depletion of non-renewable natural resources. The proposed projects would not result in a substantial increase in the rate of use of any natural resources. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NOI

13 Noise

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project result in:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	2012 RTP/SCS EIR/EIS Impacts 3.6-1, 3.6-3, and 3.6-4	No	No	No	Yes
b. Generation of excessive groundborne vibration or groundborne noise levels?	2012 RTP/SCS EIR/EIS Impact 3.6-2	No	No	No	Yes
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	2012 RTP/SCS EIR/EIS Page 3.6-10	No	No	No	N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

TRPA Environmental Checklist: Section 6 – Noise

Will the proposal result in:

a. Increases in existing Community Noise Equivalency Levels (CNEL) beyond those permitted in the applicable Plan Area Statement, Community Plan or Master Plan?	2012 RTP/SCS EIR/EIS Impacts 3.6-1, 3.6-2, and 3.6-4	No	No	No	Yes
b. Exposure of people to severe noise levels?	2012 RTP/SCS EIR/EIS Impacts 3.6-1, 3.6-3, and 3.6-4	No	No	No	Yes
c. Single event noise levels greater than those set forth in the TRPA Noise Environmental Threshold?	2012 RTP/SCS EIR/EIS Page 3.6-10	No	No	No	N/A
d. The placement of residential or tourist accommodation uses in areas where the existing CNEL exceeds 60 dBA or is otherwise incompatible?	N/A	No	No	No	N/A
e. The placement of uses that would generate an incompatible noise level in close proximity to existing residential or tourist accommodation uses?	2012 RTP/SCS EIR/EIS Impact 3.6-4	No	No	No	Yes
f. Exposure of existing structures to levels of ground vibration that could result in structural damage?	2012 RTP/SCS EIR/EIS Impact 3.6-2	No	No	No	Yes

Discussion

Since adoption of the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC there have been no changes to noise regulations relevant to the 2020 RTP/SCS at the federal, state, and county or city levels. TRPA noise thresholds and policies from 2017 remain applicable to the 2020 RTP/SCS and are briefly described below.

Lake Tahoe Regional Plan

The elements of the TRPA Regional Plan related to noise include the following: Noise Subelement of the Goals and Policies of the Regional Plan (TRPA 2012); the TRPA Code of Ordinances, Chapter 68, “Noise Limitations”; and plan area statements, community plans, and area plans (TRPA 2016). These elements are described below, followed by a summary of TRPA’s best construction practices policy for construction-generated noise and vibration, TRPA’s Region-wide traffic noise mitigation program, and exterior noise policy for mixed-use development.

Goals and Policies

The Regional Plan Noise Subelement of the Goals and Policies includes a goal to attain and maintain community noise equivalent level (CNEL) standards that is relevant to the 2020 RTP/SCS (Goal N-2). The underlying policy intended to help achieve that goal includes establishing specific site design criteria for projects to reduce noise from transportation corridors and which may include using earthen berms, and barriers (Policy N- 2.1). The transportation corridor CNEL values override land use-based CNELs within 300 feet of the applicable roadway.

Code of Ordinances

Chapter 68, “Noise Limitations,” of the TRPA Code is intended to implement the Noise Subelement of the Goals and Policies document and to attain and maintain TRPA’s noise-related Environmental Threshold Carrying Capacities (shown below).

TRPA Code Section 68.4, “Community Noise Levels,” states that TRPA shall use CNELs to measure community noise levels and that individual plan area statements shall set forth CNELs that shall not be exceeded by any one activity or combination of activities. The CNELs set forth in the plan area statements are based on the land use classification, the presence of transportation corridors, and the applicable threshold standard. Plan area statements essentially provide plan CNELs and other planning standards specific to a local area within the Tahoe Region. Because this is a plan-level evaluation, the CNELs established by individual plan area statements are not presented or applied in this analysis.

Best Construction Practices Policy for the Minimization of Exposure to Construction-Generated Noise and Ground Vibration

TRPA requires the following standard conditions, among others, for all project construction activity that involves grading; these conditions also apply to the construction of residential projects.

- Any normal construction activities creating noise in excess of the TRPA noise standards shall be considered exempt from said standards provided all such work is conducted between the hours of 8:00 a.m. and 6:30 p.m.
- Engine doors shall remain closed during periods of operation except during necessary engine maintenance.

- Stationary equipment (e.g., generators or pumps) shall be located as far as feasible from noise-sensitive receivers and residential areas. Stationary equipment near sensitive noise receivers or residential areas shall be equipped with temporary sound barriers.

Region-Wide Traffic Noise Mitigation Program

TRPA developed a Region-wide traffic noise mitigation program pursuant to the requirements of Mitigation Measure 3.6-1 in the Regional Plan Update (RPU) EIS and Mitigation Measure 3.6-4 in the 2012 RTP/SCS EIR/EIS. The Region-wide traffic noise mitigation program aims to attain and maintain TRPA's contour-based CNEL thresholds in the highway transportation corridors in the Plan Area. The attainment status of these transportation corridor noise thresholds is evaluated every four years in the noise chapter of TRPA's Threshold Evaluation. The 2015 Threshold Evaluation Report is the most recent version of this report published by TRPA (TRPA 2016). TRPA will only approve individual projects that can demonstrate compliance with TRPA's CNEL thresholds.

Exterior Noise Policy for Mixed-Use Development

TRPA developed new project review requirements for mixed-use development pursuant to the requirements of Mitigation Measure 3.6-4 in the 2012 RTP/SCS EIR/EIS. These requirements were developed to address the fact that new residential units and tourist accommodation units (TAUs) with outdoor activity areas that are included as part of redevelopment in town centers (as well as in the Regional Center, the High-Density Tourist District) could be in areas that are exposed to high exterior noise levels. TRPA requires that each project be evaluated to determine whether it would result in the placement of residential or tourist accommodation uses in areas where the existing noise level exceeds 60 CNEL or is otherwise incompatible. TRPA also requires that each project be assessed to determine whether it would result in the generation of incompatible noise levels close to existing residential or tourist accommodation uses. The 60 CNEL level is not a threshold standard and does not supersede any applicable TRPA land use-based or contour-based noise threshold standards. Rather, the 60 CNEL standard serves as a screening criteria to determine whether a project-specific noise analysis is needed, in which case a project-specific noise analysis would be required to examine whether a proposed project would result in incompatible noise levels or the exceedance of any TRPA noise threshold standards. If a proposed project would result in incompatible noise levels, feasible mitigation measures would be required prior to approval.

Environmental Threshold Carrying Capacities

TRPA has established environmental thresholds for nine resources, including noise. There are two noise threshold indicators, single noise events and cumulative noise events, which are summarized below and serve as the basis for this environmental analysis.

Single Noise Events

Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. Single Noise Event Threshold Standards adopted by TRPA are based on the numerical value associated with the maximum measured level in acoustical energy during an event. This threshold establishes maximum noise levels for aircraft, watercraft, motor vehicles, motorcycles, off-road vehicles, and snowmobiles.

Cumulative Noise Events

TRPA adopted CNEL standards for different zones within the Region to account for expected levels of serenity, as shown in Table 12 of the 2017 RTP/SCS IS/IEC. The standards, established in the Goals and Policies, apply to the entire Lake Tahoe region. The noise limitations established in Chapter 68 of the TRPA Code do not apply to noise from TRPA-approved construction or maintenance projects, or the demolition of structures, provided that such activities are limited to the hours between 8:00 a.m. and 6:30 p.m. Further, the noise limitations of Chapter 68 shall not apply to emergency work to protect life or property.

TRPA's transportation corridor noise standards for U.S. Highway 50 and Routes 431, 28, 89, 207, and 267 are most relevant to the 2020 RTP/SCS. As indicated in Note 4 of Table 12, TRPA's transportation corridor noise thresholds for U.S. Highway 50 and Routes 431, 28, 89, 207, and 267 override TRPA's land use-based CNEL thresholds at all locations within 300 feet from the edge of the roadway.

TRPA's land use-based noise thresholds indicate maximum levels of noise exposure for specific types of land uses (e.g., High Density Residential, Low Density Residential, Hotel/Motel Facilities). TRPA's transportation corridor noise standards, including its threshold for the transportation corridors, are referred to as contour-based noise thresholds. TRPA's transportation corridor noise standards indicate how loud traffic noise can be at a distance of 300 feet from the edge of the highway. For instance, the transportation corridor noise threshold for U.S. Highway 50 specifies that the 65 CNEL noise contour generated by traffic on U.S. Highway 50 shall not extend more than 300 feet from the highway's edge. Note that if the 65 CNEL of a segment of U.S. Highway 50 extends to 300 feet from the highway edge, the traffic noise levels will be greater than 65 CNEL at locations closer to the highway (e.g., approximately 68-69.5 CNEL 150 feet from the highway and approximately 71-72 CNEL 75 feet from the highway, applying the standard attenuation rate for roadway noise) and this condition is considered to be in attainment of the noise threshold established for the U.S. Highway 50 transportation corridor. Thus, the land use-based noise thresholds and contour-based transportation corridor noise thresholds established by TRPA are fundamentally different metrics. This represents a change in the methodology to analyze effects from the noise impact analysis for the 2012 RTP/SCS EIR/EIS but is consistent with methodology used in the 2017 RTP/SCS IS/IEC.

Environmental Setting

Noise-Sensitive Land Uses

Noise-sensitive land uses generally include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern due to the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Parks, schools, historic sites, cemeteries, and recreation areas are also generally considered sensitive to increases in exterior noise levels. Places of worship and other similar places where low interior noise levels are of great importance are also considered noise sensitive. Noise sensitive land uses are also considered to be vibration sensitive. Specifically, commercial and industrial buildings where ground vibration (including vibration levels that may be well below those associated with human annoyance) could interfere with operations within the building would be most sensitive to ground vibration.

Noise Sources and Ambient Noise Levels

The predominant source of noise in areas that would be directly affected by implementation of the 2020 RTP/SCS is vehicle traffic traveling on the highways in the Plan Area, including U.S. Highway 50 and routes 431, 28, 89, 207, and 267. Other noise sources include motorized watercraft activity on the lake, landscape maintenance and snow removal activities (e.g., grass cutting, leaf blowing, snow plowing and blowing) at residential and commercial land uses, and activities typical of urban and suburban environments, such as people recreating outside.

CEQA Environmental Checklist

- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Temporary Construction Noise

Similar to the 2012 and 2017 RTP/SCS, the operation of equipment during the construction of roadway infrastructure, as well as new development projects under the 2020 RTP/SCS, would result in temporary increases in noise in the immediate vicinity of individual construction sites. As shown in Table 12 average noise levels associated with the use of heavy equipment at construction sites can range from about 76 to 101 A-weighted decibels (dBA) at 50 feet from the source, depending upon the types of equipment in operation at any given time and the phase of construction. The highest noise levels generally occur during excavation and foundation development, which involve the use of such equipment as backhoes, bulldozers, shovels, and front-end loaders.

Table 12 Typical Noise Levels for Construction Equipment

Equipment	Estimated Noise Levels at Nearest Sensitive Receivers (dBA L _{eq})		
	25 feet	50 feet	100 feet
Air Compressor	86	80	74
Backhoe	86	80	74
Concrete Mixer	91	85	79
Dozer	91	85	79
Grader	91	85	79
Jack Hammer	94	88	82
Loader	86	80	74
Paver	91	85	79
Pile-drive (Impact)	107	101	95
Pile-driver (Sonic)	101	95	89
Roller	91	85	79
Saw	82	76	70

Equipment	Estimated Noise Levels at Nearest Sensitive Receivers (dBA L _{eq})		
	25 feet	50 feet	100 feet
Scarified	89	83	77
Scraper	91	85	79
Truck	90	84	78

Source: Federal Transit Administration 2018

Noise generated by construction activity would vary depending on the project and intensity of equipment use. Roadway widening projects would likely require the operation of many pieces of heavy-duty equipment that generate high noise levels. Alternatively, repainting/restriping would typically be less intense requiring minimal, if any, use of heavy equipment. This conservative analysis assesses construction noise based on the operation of heavy-duty equipment. Noise levels from point sources such as construction sites typically attenuate at a rate of about 6 dBA per doubling of distance. Nearby residences and other noise-sensitive receivers could be exposed to noise levels that may exceed applicable TRPA standards outside of the exempt hours between 8:00 a.m. and 6:30 p.m. Additionally, construction may expose nearby noise-sensitive receivers to excessive noise levels without implementation of all feasible noise control measures. However, substantial and adverse impacts to sensitive receivers due to short-term construction noise would remain less than significant with implementation of Mitigation Measure 3.6-1 from the 2012 RTP/SCS EIR/EIS requiring implementation of the Best Construction Practices Policy for construction generated noise. Overall, substantial and adverse impacts from construction noise would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS. No new significant impacts or substantially more severe impacts would occur.

Transit-Related Noise

Long-term, operational noise levels may be associated with expanded transit services, new waterborne transit infrastructure and service, and new park-and-ride lots to support vanpools and inter-regional transit shuttles. The 2020 RTP/SCS would include several new transit and active transportation projects including the Resort Triangle Transportation Plan to include shuttle improvements in the Plan Area, new terminal facilities for various bus routes, and TART Local Service Enhancements and Expanded Services. Waterborne transit service would also be implemented under the 2020 RTP/SCS. All transit-related watercraft would be required to comply with TRPA noise threshold standards for single events. Additionally, noise associated with ferry terminal operations and related parking facilities would not be unusual in the urban areas where terminals would be located. Thus, operation of a waterborne transit system would not result in new types of noise sources in the Plan Area or expose noise-sensitive receptors to excessive noise levels. Increases in transit services or services along new routes may expose sensitive receivers to bus noise. However, all new buses and waterborne transit would use clean technology, which would result in quieter vehicles. The Federal Transit Administration has developed a screening procedure to identify locations where a bus project may cause a significant noise impact. The screening distances for requiring noise assessments for various types of projects are presented in Table 13.

Table 13 Screening Distances for Noise Assessments – Bus Transit Projects

Type of Project	Screening Distance (Feet)	
	Unobstructed	Intervening Buildings
Busway	500	250
BRT on Exclusive Roadway	200	100
Bus Facilities	Access Roads	100
	Transit Center	225
	Storage and Maintenance	350
	Park and Ride Lots with Buses	225

Source: Federal Transit Administration 2018

Increased frequency of bus service along existing corridors could also increase noise exposure if diesel buses are used. However, the addition of local buses and shuttles is unlikely to increase noise by significant levels as bus routes would occur mostly in urban areas with high ambient noise levels, and fleets are being turned over to electric and hydrogen fuel which are much quieter. Additionally, transit projects contained in the 2020 RTP/SCS would not substantially differ from those included in the 2012 or 2017 RTP/SCS regarding geographic location, type, or size. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

Bike and Pedestrian-Related Noise

Long-term, operational noise levels may be associated with new bike trails and pedestrian improvements. The 2020 RTP/SCS would include several new trail and bike path projects as well as complete streets projects to improve bike lanes, pedestrian crossings and traffic flow in urbanized areas. Projects within existing urbanized areas would include the Fanny Bridge Complete Streets Phase 2, segments of the Nevada Stateline to Stateline Bikeway, the Route 89 Class I Bike Trail and components of the NDOT Complete Streets Project, among others. Bike and pedestrian-related uses would not generate a significant amount of noise, as conversational noise is not excessive and is generally characteristic of the existing noise environment in urban areas and along roadways.

New or expanded bike and pedestrian projects included in the 2020 RTP/SCS would also occur in less urbanized and developed areas and include the Tahoe City Lakeside Trail Missing Link, Dollar Creek and South Tahoe Greenway shared use trails, Lake Side Phase 2C bike trails, and Pope Beach Bike Path. These new bike and pedestrian infrastructure projects would encourage additional pedestrians and cyclists to use areas that were previously undeveloped and where existing noise levels are lower than in urban settings. As described above, these uses would not generate a significant amount of noise, as conversational noise is typically measured at a range of 60 to 65 dBA at a distance of 5 feet (Federal Transit Administration 2018). Noise levels typically attenuate at a rate of about 6 dBA per doubling of distance and conversational noise would range from approximately 28 dBA to 33 dBA at 100 feet. Similar to the 2012 and 2017 RTP/SCS, these new bike and pedestrian uses would not be located within 100 feet of noise-sensitive receivers. Noise attenuation from existing structures and topography would further ensure that conversational noise is reduced to a level that would be imperceptible to nearby receivers. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017

RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

Long-Term Traffic Noise Levels Along Existing and Realigned Roadways

The 2012 RTP/SCS EIR/EIS evaluated long-term traffic noise levels along existing and realigned roadways. Increased vehicle trips on highways under the 2012 RTP/SCS would result in nominal increases in traffic noise levels (i.e., less than 3 dB). However, increases in traffic noise levels would occur in highway corridors (i.e., within 300 feet of the highway edge) not in attainment with respect to the CNEL standards established by TRPA for highway corridors. In addition, traffic noise levels beyond the highway corridor (i.e., at distances greater than 300 feet from the highway edge) may also exceed CNEL standards established by TRPA for particular land use types, including the 55 dBA CNEL standard for high-density residential land uses, the 50 dBA CNEL standard for low-density residential land uses, the 55 dBA CNEL standard for urban outdoor recreation uses, and the 50 dBA CNEL standard for rural outdoor recreation areas. Moreover, traffic noise levels in 2012 and 2017 were determined to exceed noise standards established by the city or county general plan at land uses located near the highways. Similarly, the 2020 RTP/SCS includes projects involving roadway alignment, such as the NDOT Complete Streets Project and the U.S. Highway 50 Safety Improvements. Pursuant to Mitigation Measures 3.6-4 and 3.6-5 of the 2012 RTP/SCS EIR/EIS, projects under the 2020 RTP/SCS would be required to use barriers and acoustical shielding, reduce gaps in existing barriers and berms, utilize noise reduction pavement, plant dense vegetation where noise absorption is needed, and other similar measures.

Similar to the 2012 and 2017 RTP/SCS, overall traffic levels on highways and roadways in the Plan Area are projected to increase as a result of incremental regional growth through the year 2045 (refer to Section 17, *Transportation*). The 2020 RTP/SCS includes projects that are designed to support the proposed increase in traffic, which would result in additional traffic noise compared to baseline (2018) conditions along and in the vicinity of affected facilities. Such projects include construction of roadway realignments and improvements to roads that would allow increased traffic volumes. In addition, the anticipated number of daily VMT would increase from 1,393,994 daily under existing modelled conditions (2018) to 1,410,202 daily in 2045 with the 2020 RTP/SCS, an increase of approximately 16,208 VMT daily, or approximately 1.2 percent. Although many areas along highway and roadway corridors are at least partially shielded from traffic noise by topography, buildings, walls and other barriers, an increase in VMT and new and extended roadways would result in incrementally higher traffic noise levels as compared to existing conditions. However, the traffic improvement projects contained in the 2020 RTP/SCS would not substantially differ from those included in the 2012 or 2017 RTP/SCS regarding geographic location, type, or size.

Additionally, some projects under the 2020 RTP/SCS would include traffic calming components, such as roundabouts, and would therefore slow vehicles and reduce traffic noise levels. Mitigation Measures 3.6-4, and 3.6-5, described above, would continue to apply to applicable transportation improvement projects included in the 2020 RTP/SCS and would further reduce traffic related noise impacts to a less than significant level.

Overall, substantial and adverse noise impacts would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local

jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Similar to the 2012 and 2017 RTP/SCS implementation of new and modified projects in the 2020 RTP/SCS would include construction activities that could expose nearby buildings, structures, and people to excessive levels of ground vibration mainly from the potential for impact pile driving and blasting. Table 14 shows vibration levels associated with typical construction equipment. Similar to construction noise, vibration levels would be variable depending on the type of construction project and related equipment use.

Table 14 Vibration Source Levels for Construction Equipment

Equipment	Approximate Vibration Level (VdB)				
	25 feet from Source	50 feet from Source	100 feet from Source	200 feet from Source	
Caisson Drilling	87	78	69	60	
Jackhammer	79	70	61	52	
Large Bulldozer	87	78	69	60	
Loaded Truck	86	77	68	58	
Pile Driver (impact)	Upper range	112	103	94	84
	Typical	104	95	86	77
Pile Driver (sonic)	Upper range	105	96	87	78
	Typical	93	84	75	65
Small Bulldozer	58	48	39	30	
Vibratory Roller	94	85	76	67	

Source: Federal Transit Administration 2018

Pile driving has the potential to generate the highest vibration levels and is the primary concern for structural damage when it occurs within 50 feet of structures. Vibration levels generated by pile driving activities would vary depending on project conditions, such as soil conditions, construction methods and equipment used. Depending on the proximity of existing structures to each construction site, the structural soundness of the affected buildings and construction methods, vibration caused by pile driving or other foundation work with a substantial impact component such as blasting, rock or caisson drilling, and site excavation or compaction may be high enough to be perceptible within 100 feet and damage existing structures within 50 feet. Impacts related to vibration from construction activities would be potentially significant. However, substantial and adverse impacts related to groundborne vibration due to construction activities would remain less than significant with implementation of Mitigation Measure 3.6-2 from the 2012 RTP/SCS EIR/EIS, which requires TRPA implementation of construction BMPS and measures to reduce vibration levels from pile driving, such as locating equipment away from vibration sensitive sites and limiting exposure from vibration to specific vibration levels.

Overall, substantial and adverse vibration impacts would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

Under the heading, “Sources and Ambient Levels” on page 3.6-10, the 2012 RTP/SCS EIR/EIS briefly explains that the 2012 RTP/SCS would not result in changes to operations of the Lake Tahoe Airport or any other airport or private airstrip in the Plan Area. Therefore, no changes to the noise environment from aircraft activity in the Plan Area were anticipated from implementation of the 2012 RTP/SCS because it would not result in increased takeoffs and landings or a change to the mix of aircraft types that use the airport. This would also be the case with the 2020 RTP/SCS. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 6 – Noise

- a. *Will the proposal result in increases in existing Community Noise Equivalency Levels (CNEL) beyond those permitted in the applicable Plan Area Statement, Community Plan or Master Plan?*

Please refer to CEQA item “a” above, for a discussion of transportation noise increases beyond those permitted in applicable plans. New and modified projects under the 2020 RTP/SCS would be required to implement Mitigation Measures Mitigation Measures 3.6-4 and 3.6-5 of the 2012 RTP/SCS EIR/EIS to ensure consistency with applicable plans. Overall, substantial and adverse impacts to noise levels would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

b. Will the proposal result in exposure of people to severe noise levels?

Refer to discussion of long-term traffic noise increases and short-term construction noise under CEQA item "a." New and modified projects under the 2020 RTP/SCS would be required to implement Mitigation Measures Mitigation Measures 3.6-4 and 3.6-5 of the 2012 RTP/SCS EIR/EIS to ensure exposure to severe noise levels would be reduced to a less than significant level. Overall, substantial and adverse impacts regarding severe noise levels would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

c. Will the proposal result in single event noise levels greater than those set forth in the TRPA Noise Environmental Threshold?

The 2020 RTP/SCS would not result in changes to goals, policies, or implementation measures pertaining to single-event noise, and no features of the 2020 RTP/SCS would be expected to affect the frequency or intensity of single-event noise incidences. Similarly, no changes to levels of activity by recreational watercraft, motorcycles, off-road vehicles, and over-snow vehicles were anticipated under the 2020 RTP/SCS because it would not result in additional recreational boating facilities, trails, or recreation areas for these types of vehicles. TRPA single-event noise standards would continue to apply to all of these noise sources.

Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC

NO

d. Will the proposal result in the placement of residential or tourist accommodation uses in areas where the existing CNEL exceeds 60 dBA or is otherwise incompatible?

Pursuant to the Exterior Noise Policy for Mixed-Use Development as required by Mitigation Measure 3.6-4 in the RPU EIS, TRPA requires projects be evaluated to determine whether they would result in the placement of residential or tourist accommodation uses in areas where the existing noise level exceeds 60 dBA or is otherwise incompatible. This checklist question was added to TRPA's Environmental Checklist after the 2012 RTP/SCS EIR/EIS was certified. However, the 2017 RTP/SCS IS/IEC determined that the 2017 RTP/SCS would not result in the development of these uses in areas where noise levels exceed the 60 CNEL threshold or would be otherwise incompatible. As the 2020 RTP/SCS would promote a similar land use strategy as contained in the 2017 RTP/SCS, implementation of the 2020 RTP/SCS would not result in the development of residential or tourist accommodation uses in the areas where the existing noise level exceeds 60 CNEL or is otherwise incompatible. The 2020 RTP/SCS would ensure that residential and tourist accommodation land uses, such as the Caltrans worker housing project, would be placed in compatible zones. Because the projects included in the 2020 RTP/SCS would undergo site specific review pursuant to the Exterior Noise Policy for Mixed-Use Development and incorporate feasible mitigation to reduce

incompatible noise levels prior to approval, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2017 RTP/SCS IS/IEC.

NO

- e. *Will the proposal result in the placement of uses that would generate an incompatible noise level in close proximity to existing residential or tourist accommodation uses?*

As described above under CEQA item “a,” the 2020 RTP/SCS would not result in incompatible noise levels close to existing residential or tourist accommodation uses. Impacts from transit, active transportation, and traffic noise would not exceed levels analyzed in the 2017 RTP/SCS and mitigation from the 2012 RTP/SCS would reduce traffic noise, as feasible, at existing residential and tourist accommodation land uses. Overall, substantial and adverse impacts regarding severe noise levels would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- g. *Will the proposal result in exposure of existing structures to levels of ground vibration that could result in structural damage?*

Please refer to the discussion of potential ground vibration impacts in CEQA item “b.” Potential vibration impacts would be reduced through adherence to Mitigation Measure 3.6-2 to reduce vibration impacts. Overall, substantial and adverse impacts from ground vibration would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

This page intentionally left blank.

14 Population and Housing

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	2012 EIR/EIS Impact 3.12-1	No	No	No	N/A
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	2012 EIR/EIS Impact 3.12-2	No	No	No	N/A

TRPA Environmental Checklist: Section 11 – Population

Will the proposal:

a. Alter the location, distribution, density, or growth rate of the human population planned for the Region?	2012 EIR/EIS Impact 3.12-1	No	No	No	N/A
b. Include or result in the temporary or permanent displacement of residents?	2012 EIR/EIS Impact 3.12-2	No	No	No	N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

TRPA Environmental Checklist: Section 12 – Housing

Will the proposal:

a. Affect existing housing, or create a demand for additional housing? To determine if the proposal will affect existing housing or create a demand for additional housing, please answer the following questions: (1) Will the proposal decrease the amount of housing in the Tahoe Region?, (2) Will the proposal decrease the amount of housing in the Tahoe Region historically or currently being rented at rates affordable by lower and very-low-income households?	2012 EIR/EIS Impact 3.12-1	No	No	No	N/A
b. Will the proposal result in the loss of housing for lower-income and very-low-income households?	2012 EIR/EIS Impact 3.12-1	No	No	No	N/A

Discussion

The 2012 RTP/SCS EIR/EIS anticipated a fairly large regional population growth, commensurate with the growth rates throughout California. The 2017 IS/IEC used the same growth assumptions as the 2012 analysis. Actual population growth to the 2020 planning horizon for the 2012 RTP/SCS decreased approximately 26 percent compared to the 2010 population counts (US Census Bureau, American Communities Survey 2019). Since 2019, the regional population has been increasing slightly (3.7 percent on the California side and 4.1 percent on the Nevada side [US Census Bureau 2020]). This trend is anticipated to continue as included in the 2020 RTP Regional Forecast, which predicts that increased job opportunities and remote working conditions will support full-time residency in the Plan Area. Specifically, the 2020 RTP Regional Forecast projects an increase in Lake Tahoe’s full-time residential population by approximately 12.4 percent, from 2018 to 2045 (TRPA

2020g). This would add approximately 6,417 new residents between 2018 and 2045, with the construction of an additional 4,597 housing units. This minor increase would still be in line with the population increases anticipated in the 2012 and 2017 analyses.

The land use scenario would remain the same under the 2020 RTP/SCS as that analyzed in the 2012 RTP/SCS and discussed in the 2017 IS/IEC, with similar effects on population and housing. The 2020 RTP/SCS would implement transportation and community improvement projects, such as complete streets and parking management, that could draw visitors and residents; however, these projects would not contribute substantially to permanent population increases or visitation.

Nonetheless, projects under the 2020 RTP/SCS are not growth-inducing projects in and of themselves and population increases resulting from these projects would not be substantial. Instead the 2020 RTP/SCS is designed to support anticipated population growth. Furthermore, the 2012 EIR/EIS anticipated highway realignment projects that could displace businesses and residences, similar to the 2017 IS/IEC analysis. The 2020 RTP/SCS does not propose this type of project and no housing displacement would occur under the 2020 RTP/SCS.

It should be noted that the research and majority of the forecasts for the 2020 RTP/SCS were developed prior to the impact of COVID-19. Both states issued stay-at-home orders and the casinos, ski resorts and many other businesses closed in March 2020, furloughing or laying off thousands of employees. The long-term impacts of COVID-19 on the region are uncertain. Given this uncertainty, TRPA staff has maintained the assumptions included in Appendix D for the forecast scenarios even in light of the COVID -19 pandemic and associated economic downturn.

CEQA Environmental Checklist

- a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The 2012 RTP/SCS EIR/EIS planned for increased population through the 2020 and 2035 planning horizons that was not met by actual growth rates. Instead, population in the Plan Area declined between 2010 and 2020. Therefore, population growth that would occur during the 2045 planning horizon would be commensurate with that anticipated in the earlier analyses. The 2012 RTP/SCS EIR/EIS projected a population increase to 60,365 residents for the 2035 planning horizon year, and the 2017 IS/IEC assumed the same level of growth as the 2012 analysis.

New and modified projects under the 2020 RTP/SCS include active transportation, complete streets, and community connection programs and are not population-increasing in themselves. Instead, the 2020 RTP/SCS is intended to accommodate growth projected in the Plan Area, which is projected to be 6,417 people or 12.4 percent over existing conditions. Therefore, because the 2020 RTP/SCS would support anticipated growth in the Plan Area and population projections would be consistent with what was estimated in 2012 and 2017 the 2020 RTP/SCS would not induce substantial population growth. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Similar to the 2017 RTP/SCS, new and modified transportation and land use projects included in the 2020 RTP/SCS are not anticipated to cause the displacement of existing housing or people, as new and modified projects that involve the construction of new facilities, such as the new terminal facility in Meyers, or new trails and pathways, such as the South Tahoe Greenway Shared Use Trail, would not require the demolition of existing residences or housing facilities. During construction of individual projects, residents may be temporarily affected (refer to Section 3, *Air Quality*; Section 8, *Greenhouse Gas Emissions/Climate Change*; Section 17, *Transportation/Circulation*), but would not be displaced.

In the long-run, the 2020 RTP/SCS would support the anticipated increase in housing units by providing improved roadway connections; and improved pedestrian, bicycle, and transit facilities. Anticipated increase in housing under the SCS would not result in temporary or permanent displacement of residents and would instead accommodate the slight increase in full-time residents projected for the Plan Area through the 2045 planning year. Because the 2020 RTP/SCS would not require the demolition of existing housing units, it would not displace substantial numbers of existing housing or people and would not necessitate the construction of replacement housing. Additionally, projects, such as the Caltrans Tahoe City Maintenance Station Project, would provide new housing opportunities.

Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as those proposed under the 2012 and 2017 RTP/SCS, and would incorporate site-specific design and mitigation, no new significant impacts or substantially more severe impacts to housing availability would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 11 – Population

- a. *Will the proposal alter the location, distribution, density, or growth rate of the human population planned for the Region?*

As described under CEQA item “a” above, population growth forecast under the 2020 RTP/SCS land use scenario was accounted for in the 2012 RTP/SCS and affirmed in the 2017 IS/IEC. This land use scenario, consistent with the 2017 RTP/SCS, concentrates the forecasted growth in population and employment in already urbanized areas. New development under the 2020 RTP/SCS is anticipated to increase through 2045, in keeping with State-mandated housing requirements (Appendix D). Specific plans for development under the 2020 RTP/SCS would not alter the location, distribution, density, or growth rate of the population in the Plan Area beyond that estimated during previous planning processes and would, therefore, not lead to an unplanned increase in population above what has already been analyzed. Neither is the 2020 RTP/SCS population-increasing in and of itself as proposed projects support transportation, recreation, and sustainable communities initiatives, and are intended to provide supportive infrastructure and services for planned population and visitation changes. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation,

no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

b. Will the proposal include or result in the temporary or permanent displacement of residents?

As described under CEQA item “b” above, the forecasting for the 2020 RTP/SCS anticipates there would be an increase of up to 4,597 new residential units. These new units are expected to be used for local resident housing, second homes, and vacation rentals in similar proportions as existing conditions, with a slight increase in the proportion of local resident housing. Therefore, this increase in units would not result in temporary or permanent displacement of residents and would instead accommodate the slight increase in full-time residents projected for the Plan Area through the 2045 planning year. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

Section 12 – Housing

a. Will the proposal affect existing housing, or create a demand for additional housing?

To determine if the proposal will affect existing housing or create a demand for additional housing, please answer the following questions:

(1) Will the proposal decrease the amount of housing in the Tahoe Region?

(2) Will the proposal decrease the amount of housing in the Tahoe Region historically or currently being rented at rates affordable by lower and very-low-income households?

Impacts from housing displacement are discussed under CEQA item “b.” As mentioned in the Discussion section above, anticipated growth in the region would include 4,597 new housing units, and the 2020 RTP/SCS would accommodate growth in conformance with local general plans, State-mandated housing, and Regional Forecast population growth estimates. According to the 2020 Regional Forecast Report, the provision of low-income residential units is projected to increase by 13.6 percent through 2045, in response to planned efforts to counteract the recent upward trend in housing prices in the region and to meet required State-housing mandates (Appendix D). The 2020 RTP/SCS would support the anticipated increase in housing units by providing improved roadway connections; and improved pedestrian, bicycle, and transit facilities. Anticipated increase in residential units under the SCS would accommodate the slight increase in full-time residents projected for the Plan Area through the 2045 planning year.

New and modified projects under the 2020 RTP/SCS include active transportation, community corridor and complete streets, operations and maintenance, and technology programs that facilitate safety, circulation, and parking, which are not growth-inducing projects, but rather are intended to accommodate future growth. Nonetheless, the SCS would facilitate affordable housing in that it provides a regional foundation to accommodate population growth projections for the region, across all jurisdictions within the Plan Area. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location relative to growth projections under previous analyses, there is no anticipated impact to housing demand or decrease in affordable housing in the Plan Area.

NO

b. Will the proposal result in the loss of housing for lower-income and very-low-income households?

As with the discussion under TRPA Section 12 - Housing item "a," above, projects under the 2020 RTP/SCS include active transportation, community corridor and complete streets, operations and maintenance, and technology programs that facilitate safety, circulation, and parking. These are not growth-inducing projects and do not include permanent residential development, although the Caltrans Tahoe City Maintenance Station would construct temporary dormitory housing for employees while they work on projects in the area. Nonetheless, the SCS would facilitate affordable housing as it improves transportation infrastructure and operations, reducing transportation costs for local residents and increasing locations where affordable housing can be built, as many affordable housing incentives are tied to proximity to transit, across all jurisdictions within the Plan Area. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location relative to growth projections under previous analyses, there would be no impact to housing demand or decrease in affordable housing in the Plan Area.

NO

15 Public Services

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1	Fire protection?	2012 RTP/SCS EIR/EIS Impact 3.13-5 Section 3.13.4, Issues dismissed from Further Evaluation	No	No	No	Yes
2	Police protection?	2012 RTP/SCS EIR/EIS Impact 3.13-5 Section 3.13.4, Issues dismissed	No	No	No	Yes

		Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
		from Further Evaluation				
3	Schools?	2012 RTP/SCS EIR/EIS Section 3.13.4, Issues dismissed from Further Evaluation	No	No	No	N/A
4	Parks?	2012 RTP/SCS EIR/EIS Impact 3.11-1	No	No	No	N/A
5	Other public facilities?	Not addressed	No	No	Not discussed	N/A

TRPA Environmental Checklist: Section 14 – Public Services

Will the proposal have an unplanned effect upon, or result in a need for new or altered governmental services in any of the following areas?

a.	Fire protection?	2012 RTP/SCS EIR/EIS Section 3.13.4	No	No	No	Yes
b.	Police protection?	2012 RTP/SCS EIR/EIS Section 3.13.4	No	No	No	Yes
c.	Schools?	Section 3.13.4, Issues dismissed from Further Evaluation	No	No	No	N/A
d.	Parks or other recreation facilities?	2012 RTP/SCS EIR/EIS Impact 3.11-1	No	No	No	N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
e. Maintenance of public facilities, including roads?	2012 RTP/SCS EIR/EIS Section 3.13.4	No	No	No	N/A
f. Other governmental services?	2012 RTP/SCS EIR/EIS Section 3.13.4	No	No	No	N/A

Discussion

The 2012 RTP/SCS EIR/EIS analyzed the effects of project implementation to public services, including police, fire protection, schools, parks, and other public facilities, along with utilities systems. In this IS/IEC, impacts to utilities systems are discussed under Section 19, *Utilities and Service Systems*. Proposed policies and projects under the 2020 RTP/SCS are intended to improve public facilities such as roads and connections between currently separated recreation facilities and public areas such as schools, trails, parks, beaches, and other recreation facilities. Additionally, projects include new and renovated stormwater systems, as well as maintenance. These projects would contribute to improved public services. Proposed safety improvements to transportation systems infrastructure would facilitate better service on behalf of fire and police protection services.

CEQA Environmental Checklist

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The 2012 RTP/SCS EIR/EIS found that existing contracts for local, state, and federal agencies to provide fire services throughout the Lake Tahoe region would be sufficient to accommodate the projects proposed under the 2012 RTP/SCS. Because new housing or other projects that would increase population and, therefore, demand for fire protection services, would not be part of the 2012 RTP/SCS, this issue was dismissed from further evaluation in the 2012 EIR/EIS. Similarly, the 2020 RTP/SCS does not propose projects that would increase residential or commercial development directly. Neither is it population-increasing in and of itself as proposed projects support transportation, recreation, and sustainable communities initiatives. Increased fire protection facilities would not be necessary to serve projects proposed under the 2020 RTP/SCS.

Construction or roadway maintenance could temporarily affect response times or other performance objectives. However, construction operators would be required to coordinate with

local agencies and implement traffic control plans under Mitigation Measure 3.13-5 from the 2012 RTP/SCS EIR/EIS, which would address emergency vehicle access for fire protection. Overall, substantial and adverse impacts to emergency public services would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The 2012 RTP/SCS EIR/EIS found that existing contracts for local, state, and federal agencies to provide police emergency services throughout the region would be sufficient to accommodate the projects proposed under the 2012 RTP/SCS. Because new housing or other projects that would increase population and demand for police protection services, were not part of the 2012 RTP/SCS, this issue was dismissed from further evaluation in the 2012 EIR/EIS. Similarly, the 2020 RTP/SCS does not implement projects that would increase residential or commercial development directly. Neither is it population-increasing in and of itself as the proposed projects support transportation, recreation, and sustainable communities initiatives. Increased police protection facilities would not be necessary to serve projects proposed under the 2020 RTP/SCS.

Construction or roadway maintenance could temporarily affect response times or other performance objectives, but scheduling would be coordinated with local agencies and implement traffic control plans under Mitigation Measure 3.13-5 from the 2012 RTP/SCS, which would address emergency vehicle access for police protection. Overall, substantial and adverse impacts to emergency public services would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?*

Similar to the 2012 and 2017 RTP/SCS, new schools would not be required to support the transportation projects associated with the 2020 RTP/SCS. The 2020 RTP/SCS is not population-increasing in and of itself as the proposed projects support transportation, recreation, and sustainable communities initiatives. A need for increased school facilities or services would not occur under the 2020 RTP/SCS. Some projects under the 2045 RTP/SCS would provide connectivity between schools and recreation facilities, resulting in beneficial effects. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO IMPACT

- a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?*

Similar to the 2012 and 2017 RTP/SCS implementation of the 2020 RTP/SCS would benefit recreational uses as they would improve connectivity, add facilities, and enhance wayfinding. The 2020 RTP/SCS does not implement projects that would increase residential or commercial development directly and it is not a population-increasing plan in and of itself. The proposed projects support transportation, recreation, and sustainable communities initiatives and would not result in a need for increased maintenance or new parks that would cause significant environmental impacts. Furthermore, projects included under the 2020 RTP/SCS would supplement or increase recreation facilities (see Section 16, *Recreation*, for a full discussion of these facilities). Thus, service ratios and other performance objectives would not be impacted. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as those under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?*

Although population increases are expected during the planning horizon, they are not anticipated to be more than those originally expected under the 2012 EIR/EIS or 2017 IS/IEC. Transportation projects proposed under the 2020 RTP/SCS do not involve new housing or other projects that would increase population, thus demand for other government facilities would not exceed those under the existing conditions. Furthermore, new and modified 2020 RTP/SCS projects support transportation, recreation, and sustainable communities initiatives and include maintenance projects that would resurface roadways and improve safety signage. A need for increased, new, or physically altered public facilities would not occur under the 2020 RTP/SCS, and no new significant impacts or

substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 14 – Public Services

Will the proposal have an unplanned effect upon, or result in a need for new or altered governmental services in any of the following areas?

- a. Fire protection?*
- b. Police protection?*
- c. Schools?*
- d. Parks or other recreational facilities?*

As mentioned in the Discussion section above, the 2020 RTP/SCS does not implement projects that would increase residential or commercial development directly as it is not a population-increasing plan in and of itself, but rather proposes projects and a land use scenario that accommodates anticipated growth in the Plan Area. Similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS projects support transportation, recreation, and sustainable communities initiatives. Existing emergency and school facilities would be sufficient to meet the needs of the residents and visitors under the 2020 RTP/SCS. Furthermore, recreational facilities would be increased with the implementation of active transportation and other connectivity projects under the 2020 RTP/SCS and no unplanned effects would occur that could impact parks or other recreational facilities. A need for new or altered government facilities or services for fire protection, police protection, schools, and parks would not occur. Refer to CEQA items “a.1” through “a.4” above for a discussion of these public services. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- e. Maintenance of public facilities, including roads?*

As discussed in Section 17, *Transportation*, there would be less than significant impacts to road maintenance, with some projects such as the NDOT Complete Streets Project and the Caltrans Pavement Preservation Project on Route 28/Route 89, resulting in maintenance benefits. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

f. Other governmental services?

Please refer to CEQA item “a.5” for a discussion of impacts to public facilities and governmental services. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

This page intentionally left blank.

16 Recreation

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	2012 EIR/EIS, Impact 3.11-1	No	No	No	N/A
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	2012 EIR/EIS, Impact 3.11-1	No	No	No	N/A

TRPA Environmental Checklist: Section 19 – Recreation

Does the proposal:

a. Create additional demand for recreation facilities?	2012 EIR/EIS, Impact 3.11-1	No	No	No	N/A
b. Create additional recreation capacity?	2012 EIR/EIS, Impact 3.11-1	No	No	No	N/A
c. Have the potential to create conflicts between recreation uses, either existing or proposed?	2012 EIR/EIS, Impact 3.11-2	No	No	No	N/A
d. Result in a decrease or loss of public access to any lake, waterway, or public lands?	2012 EIR/EIS, Impact 3.11-1	No	No	No	N/A

Discussion

Changes in recreation facility use often correlate with increases in population. The 2012 RTP/SCS EIR/EIS used the concept of people at one time (PAOT) as a measure of recreation capacity. Allocations of PAOTs are used to both promote and control recreation facility development. Although certain recreation facilities have a design capacity for a given number of people at a time (e.g., developed campgrounds), PAOTs are not a management tool and do not indicate the overall use of a site. PAOTs are intended to ensure that a “fair share” of the region’s remaining resource capacity through water and sewer services is available for outdoor recreation areas and is allocated to projects that would result in an increase in the carrying capacity of recreation sites sewage systems.

The 2020 RTP/SCS includes new transportation projects and projects that were in the 2017 RTP/SCS and a land use strategy as part of the SCS. Although the 2020 RTP/SCS would accommodate new development anticipated in the forecast, the land use strategy that is part of the SCS includes a similar land use plan as in 2017. Therefore, assessment of recreation focuses on impacts from new transportation projects and increases in population because of new residents and visitors. New 2020 RTP/SCS projects that might affect recreation include new trails and trail linkages like the Nevada Stateline to Stateline Corridor Improvements project; the SR 28 Central Corridor Improvements – Sand Harbor to Spooner State Park; implementation of parking management under the Resort Triangle Transportation Plan in Placer County; and the parking management and wayfinding project in Tahoe City.

Recreational opportunities in the Plan Area are plentiful and change seasonally due to the nature of the environment. These are also distributed across multiple jurisdictions in California and Nevada. Recreation activities can be categorized as dispersed, developed, and urban, defined as follows:

- Dispersed recreation includes activities that generally do not require facilities such as hiking, primitive camping, fishing, backcountry and cross-country skiing, kayaking and rafting, and swimming.
- Developed recreation includes similar activities enhanced by the availability of built facilities such as campgrounds, marinas, and ski resorts operated on public or private lands.
- Urban recreation includes facilities normally found in a developed setting such as swimming pools, ice skating rinks, athletic fields, and neighborhood parks and usually is designed for and used by residents of the area rather than visitors and tourists.

USDA Forest Service, state park agencies, local jurisdictions, public utility districts, and private businesses, have management authority over recreation facilities. Public access to recreational opportunities depends on the type and location of the resource, and may include paved or unpaved roads, bicycle trails, and pedestrian trails.

CEQA Environmental Checklist

- a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Forecast growth analyzed in the 2020 RTP/SCS includes an increase in visitors and resident population. Based on data from the recreation travel survey, 60 percent of respondents travel to the area for recreational purposes (Lake Tahoe Info 2018).

The Regional Forecast Report indicates that for several years the permanent population in the Plan Area decreased due to changes in gaming industry, among other economic factors. This means that regional growth forecasts for the last decades have overestimated population increases and thus the need for housing and recreation facilities that would need to accommodate it (TRPA 2020b). The 2012 RTP/SCS EIR/EIS anticipated a fairly large regional population growth, commensurate with the growth rates throughout California. The 2017 IS/IEC used the same growth assumptions as the 2012 analysis. Actual population growth to the 2020 planning horizon for the 2012 RTP/SCS decreased approximately 26 percent compared to the 2010 population counts (US Census Bureau, American Communities Survey 2019). Since 2019, the population has been increasing slightly (3.7 percent on the California side and 4.1 percent on the Nevada side [US Census Bureau 2020]). The 2020 RTP Regional Forecast includes growth of the local residential population as result of increased job opportunities and initiatives that focus on affordable and achievable housing.

Current anticipated increases for the 2045 planning horizon, therefore, are less than or equal to those previously anticipated but not met under earlier planning efforts. Therefore, regional population increase is expected to be on track with the increase estimated during previous RTP/SCS planning processes and would, therefore, not lead to an unforeseen increase in demand on recreational facilities above what has already been analyzed.

TRPA anticipates an increase in visitors using the recreation facilities, based on projected population growth in nearby urban areas from which many visitors come to the region (TRPA 2020b). These visitors would be distributed across the region and would engage in a range of recreation forms, from indoor activities (e.g., resort spas, concerts, gaming) to trails and other outdoor recreation. The PAOT capacity measures anticipate that the increase in available recreational facilities, including outdoor and indoor, would have the sewer capacity to meet the potential increase in visitors. In addition, the 2020 RTP/SCS would provide several new alternative transportation opportunities to access recreational sites including new and expanded bicycle and pedestrian trails. New transportation options are designed to provide alternatives to and reduce reliance on the automobile. Increased focus on management tools such as real time information visitor information, reservation systems, and congestion-based pricing, could help reduce congestion at recreation hotspots and spread peak demand over space and time.

The 2020 RTP/SCS includes new projects that would increase accessibility to existing recreational facilities in the Plan Area by improving the conditions and connectivity of the transportation system. These recreation and transportation connections are developed through the corridor planning framework. Proposed projects in the 2020 RTP/SCS are intended to enhance and improve already existing transportation and mobility systems in the Plan Area, primarily through additional connection points and improvements to roadway conditions and safety features. Even with increased numbers of visitors, it is assumed that the increased number of facilities (i.e., trails) would meet increased demand as that demand would be distributed across the existing and new recreation spots, including dispersed, developed, and urban facilities. Thus, the new projects are

unlikely to increase demand in the Plan Area in a way that cannot be accommodated by existing and new recreational facilities. Through corridor planning, vehicle use is discouraged in favor of alternative modes of transportation that have more ability to manage visitation to spread it over time to reduce peak demand for those recreation demands, accommodating the same visitation in a less impactful manner.

The 2020 RTP/SCS includes several new projects to expand or create new bicycle and pedestrian paths and off-road trail systems. Paths and trails themselves are recreational facilities and could therefore lead to increased visitor demand on these and other recreation facilities where the paths lead. This increased demand can be offset by reducing vehicle access to recreation areas. Projects included in the 2020 RTP/SCS that may have recreational impacts from increased demand are as follows:

- Class I Bike Trail – Pine Boulevard to end of Linear Park Path west of Park Avenue (South Lake Tahoe)
- SR 28 Corridor Management Plan Implementation - Phase 1
- Nevada Stateline to Stateline Bikeway Laura Drive to Stateline (Phase 1a)
- Nevada Stateline Corridor Improvements – Glenbrook Entrance to Round Hill Pines Beach
- Class I Bike Path: East San Bernardino to West San Bernardino in El Dorado County
- South Tahoe Greenway Shared Use Trail, Phases 1b and 2
- SR 28 Central Corridor Improvements – Sand Harbor to Spooner State Park (phase 2 of the East Shore Tahoe Trail)
- North Tahoe Regional Bike Trail
- Nevada Stateline to Stateline Bikeway - Crystal Bay to Incline
- Brockway Vista Multi-Use Trail
- Alta Mira Public Access Improvements
- Nevada Stateline to Stateline Corridor Improvements - Glenbrook Entrance to Round Hill Pines Beach
- Fallen Leaf Road Pavement Rehabilitation and Recreational Access Project
- Tallac Historic Site, Valhalla, and the Visitor Center Improvements
- Lakeview Commons Phase 3 - Sustainable Communities

Developing these new trails, trail expansions, and access projects as part of the 2020 RTP/SCS may increase demand by drawing new users to the Plan Area, but these projects would also accommodate and benefit the many recreational users who already visit the Plan Area and would likely use these new proposed facilities along with the existing facilities. These projects are not planned in isolation. Many are in developed areas, closing gaps in the trail system, connecting town centers, and have either existing transit service or planned services and parking management. Through corridor planning new trail access to recreation sites is paired with parking restrictions and relocations, shifting use and not expanding overall capacity. Improved facilities, stronger management tools, and transportation options would, thus, redistribute existing and new use of recreation facilities across the Plan Area, basically increasing capacity commensurate with the increase in visitors. The broad geographic distribution of the proposed projects would also serve to spread out the number of users for existing and new facilities. The Plan Area spans the Lake Tahoe Basin, and new users would only visit a small number of locations each visit, dispersing demand on the facilities tied to the area in which the visit occurs. Furthermore, some new and existing visitors

would come to participate in urban recreation, such as shopping and gaming. These visitors are likely to be more focused on those activities and will use the dispersed or developed recreation facilities to a lesser extent.

TRPA anticipates an increase demand for recreation in the Plan Area. Several external factors including the economy, demand for other recreation destinations globally, population growth, changing demographics, and consumer trends cause the increase. Internal factors, such as expansion of recreation facilities are meant to better manage existing demand to serve the same amount of people across space and time and in a less damaging manner. Implementing user facing recreation apps can utilize algorithms to redirect visitation across the Plan Area based on a variety of factors. Continued implementation of existing recreational goals and polices would reserve adequate capacity for recreation and reduce impacts. While many of these visitors would travel to the Lake Tahoe region to take advantage of recreation facilities, the increase is not likely to be more than that anticipated by the RTP/SCS nor that analyzed in the 2012 EIR/EIS and 2017 IS/IEC. Thus, existing recreational facilities and their planned maintenance would meet increased demand without resulting in significant deterioration of those facilities. Furthermore, some of the proposed projects under the 2020 RTP/SCS would add to the existing recreational amenities to connect, extend, or augment active transportation facilities, resulting in a positive effect.

Potential impacts related to the use of recreational facilities were evaluated in the 2012 RTP/SCS EIR/EIS and reconsidered as part of the 2017 RTP/SCS IS/IEC. Impacts were found to be less than significant under both evaluations. New projects in the 2020 RTP/SCS would be similar in scope and nature and would correspond with updated estimates for resident and visitor recreational user increases. No new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

New and modified recreational projects included in the 2020 RTP/SCS have the potential to result in environmental impacts during construction and operation. Recreational projects that involve expanding or improving existing facilities would have fewer impacts than projects that include the construction of new facilities as the latter could develop undisturbed land. Roadway projects in urbanized areas are likely to have fewer impacts than those in undeveloped or dispersed areas for the same reason. The active transportation projects proposed in the 2020 RTP/SCS would supplement existing recreation facilities, including providing connectivity between existing trails. Their implementation would not necessitate additional facilities that would have adverse effects on the environment. Environmental impacts, including those associated with construction, under the 2020 RTP/SCS are discussed throughout this IS/IEC and were determined to be less than significant (with adherence to mitigation for some impacts). Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 19 – Recreation

a. Does the proposal create additional demand for recreation facilities?

The 2020 RTP/SCS is not a population-inducing project on its own but the Plan Area is anticipated to have an increase in population, as discussed above in CEQA item “a.” Although population increases are expected during the planning horizon, they are not anticipated to be more than that originally expected under the 2012 EIR/EIS. Furthermore, the proposed project would augment the existing recreation facilities and shift visitor travel to other modes, not increase travel. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

b. Does the proposal create additional recreation capacity?

The 2020 RTP/SCS includes new projects that would better accommodate recreation demand, and in some cases create additional capacity. As with those analyzed in the 2012 and 2017 RTP/SCS documents, numerous active transportation projects are part of the proposed 2020 RTP/SCS, along with new and improved pedestrian facilities within developed areas that increase capacity and have beneficial impacts, as analyzed under the 2012 EIR/EIS. Refer to CEQA item “a” above for a list of new and expanded active transportation projects. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and while additional capacity would be created, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

c. Does the proposal have the potential to create conflicts between recreation uses, either existing or proposed?

Projects proposed under the 2020 RTP/SCS would not conflict with other recreation uses, as they do not conflict with existing goals and policies that provide for type, location, and rate of development of recreational uses and facilities. Proposed new projects would increase connectivity between existing recreation uses, for example the Route 89 Class 1 Bike Trail in El Dorado County. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

d. Does the proposal result in a decrease or loss of public access to any lake, waterway, or public lands?

The 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC found that the proposed transportation improvement projects under the RTP/SCS would improve public access throughout the region. Projects proposed under the 2020 RTP/SCS would also increase public access to other recreation areas, as they would connect one facility with another, as with the Pope Beach Bike Path in El Dorado County. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those analyzed previously in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

This page left intentionally blank.

17 Transportation

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	2012 RTP/SCS EIR/EIS Impact 3.3-1, 3.3-2, 3.3-4, and 3.3-5	No	No	No	Yes
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	2012 RTP/SCS EIR/EIS Impact 3.3-3 and 2017 RTP/SCS IS/IEC Pages 3-53 to 3-54	No	No	No	N/A
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	2012 RTP/SCS EIR/EIS Impact 3.3-5	No	No	No	Yes
d. Result in inadequate emergency access?	2012 RTP/SCS EIR/EIS Impact 3.13-5	No	No	No	Yes

TRPA Environmental Checklist: Section 13 – Transportation/Circulation

Will the proposal result in:

a. Generation of 100 or more new Daily Vehicle Trip Ends (DVTE)?	2017 RTP/SCS IS/IEC Page 3-58	No	No	No	N/A
b. Changes to existing parking facilities, or	2012 RTP/SCS	No	No	No	N/A

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
demand for new parking?	EIR/EIS Chapter 2				
c. Substantial impact upon existing transportation systems, including highway, transit, bicycle or pedestrian facilities?	2012 RTP/SCS EIR/EIS Impacts 3.3-1, 3.3-2, 3.3-3, 3.3-4, and 3.3-5	No	No	No	Yes
d. Alterations to present patterns of circulation or movement of people and/or goods?	2012 RTP/SCS EIR/EIS Impacts 3.3-1, 3.3-2, 3.3-3, 3.3-4, and 3.3-5	No	No	No	Yes
e. Alterations to waterborne, rail or air traffic?	2012 RTP/SCS EIR/EIS Impact 3.3-4	No	No	No	N/A
f. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?	2012 RTP/SCS EIR/EIS Impact 3.3-5	No	No	No	Yes

Regulatory Background

Since the 2012 EIR/EIS and 2017 IS/IEC, there have been changes to federal, state, and local transportation regulations relevant to the 2020 RTP/SCS. These new or updated regulations are discussed below.

Senate Bill 743

California Governor Jerry Brown signed SB 743 into law on September 27, 2013, which changed the way that public agencies evaluate the transportation impacts of projects under CEQA. In addition to new exemptions for projects that are consistent with specific plans, SB 743 is intended to replace congestion-based metrics, such as auto delay and level of service (LOS), with VMT as the basis for determining significant environmental impacts. Furthermore, parking impacts are no longer considered significant impacts on the environment for select development projects within infill areas with nearby frequent transit service. The intention of the new guidelines is to more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHG

emissions. Revisions to the *CEQA Guidelines* were published in December 2018, with VMT analysis required for new CEQA compliance documents starting July 1, 2020.

2020 RTP Modeling Methodology and Results

To ascertain the existing and future traffic conditions in the region, a Traffic Operations Analysis was completed by Kittelson & Associates (Kittelson) in September 2020 (Appendix G). As described in this study, traffic operations were evaluated at seven key study intersections and 24 roadway segments. See Appendix G for a list and figure of roadway intersections and roadway segments analyzed for the 2020 RTP/SCS. These intersections and roadway segments remain consistent with those identified in the 2017 RTP/SCS document. This section presents the methods used to determine the LOS for the study intersections and roadways in the Plan Area and includes descriptions of the data requirements, analysis methodologies, and the applicable LOS standards. Traffic was evaluated under existing (2018) conditions and future (2045) conditions, both with and without the 2020 RTP/SCS.

Per Capita Vehicles Miles Traveled

TRPA has adopted a new Threshold promoting VMT reduction per capita to meet the GHG objectives of both California and Nevada that will also increase mobility options and decrease reliance on autos. The new VMT Threshold establishes a goal of reducing per capita VMT by 6.8% by 2045.

This document therefore assesses the proposal against the likely threshold in effect at the time of adoption.

As part of the per capita VMT analysis, this document also discloses future absolute VMT as a result of implementation of the RTP. VMT was evaluated for the 2020 RTP/SCS as included in the methods and guidance for assessing VMT for residents, employees, and visitors (Appendix G).

Level of Service

LOS describes the operating conditions experienced by motorists. LOS is a qualitative measure of the effect of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort and convenience. Levels of service are designated “A” through “F” from best to worst, which cover the entire range of traffic operations that might occur. LOS “A” through “E” generally represent traffic volumes at less than capacity, while LOS “F” represents locations over capacity and/or experiencing significant delays. Although an analysis of LOS is no longer required under CEQA, TRPA assesses LOS for RTP updates. Therefore, a summary of LOS has been added to this IS/IEC for informational purposes. Intersection and roadway segment evaluation methodology, intersection volume data, and existing (2018) and future (2045) intersection and roadway LOS tables are included in Appendix G.

Existing Traffic Conditions

Data Collection and Assumptions for Roadway Volumes

Due to atypical travel patterns currently observed as a result of the COVID-19 pandemic, new traffic counts were not collected for this analysis. Existing 2018 counts/volumes were used as available. Where 2018 counts/volumes were not available, 2018 volumes for intersections and roadway segments were estimated based on the known 2018 traffic counts and standard methodologies from NCHRP Research Report 765 to adjust traffic volumes from available counts. Existing (2018

base year) volumes were compiled for each roadway segment. Values were collected or calculated to analyze operations for the study roadways. Roadway volume data and existing conditions are included in Appendix G.

Trip Reduction Impact Analysis Tool

TRPA developed and maintains a Trip Reduction Impact Analysis (TRIA) spreadsheet tool to evaluate the trip and vehicle-miles of travel (VMT) reduction impacts of various transportation policies and programs under consideration as part of the RTP/SCS (Appendix H). TRIA captures strategies that can significantly affect travel demand such as parking policies, traveler information systems, new transit operations, or construction of new bike trails and sidewalks, but which cannot be accurately captured in the TRPA travel demand model. The purpose of the TRIA tool is to provide planning-level, order-of-magnitude, comparative estimates of the quantitative vehicle trip reductions in the travel demand modeling process (described above) to inform expected total trips, and by extension, VMT and greenhouse gas (GHG) emissions based on the combined impact of the capital improvement projects, operational enhancements, policies, and programs considered in the TRPA 2045 RTP/SCS.

CEQA Environmental Checklist

- a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

The 2020 RTP/SCS provides an update to the 2017 RTP/SCS through limited changes to projects and programs for implementation in the Plan Area through 2045, as compared to a planning horizon of 2040 with the 2017 RTP/SCS. Generally, the types of short-term construction-related traffic required for implementation of new projects under the 2020 RTP/SCS would be similar to short-term construction required to implement the 2012 and 2017 RTP/SCS. The 2020 RTP/SCS transportation improvements project list updates the 2017 project list by removing projects completed since 2017, modifying some projects remaining on the list, and adding approximately 45 new minor projects to the list. Proposed new and modified projects would maintain a similar level of construction effort (and thus construction-related trips) between the 2012 and 2017 projects and the 2020 RTP/SCS new projects.

The 2020 RTP/SCS would include many of the same projects as under the 2017 and 2012 RTP/SCS, many of which are currently being implemented. Proposed transit includes increasing headways on main line services that serve town centers and recreation sites, continuing regional routes that connect Tahoe to Minden and Carson Valley. New proposed transit will include serving neighborhoods on the north and south shore with smaller transit shuttles that will connect with main line services. New projects that would require construction include new bicycle infrastructure and corridor revitalization projects (such as the east San Bernardino Bike Path, Alta Mira Public Access Improvements, and Fallen Leaf Road Pavement Rehabilitation and Recreational Access Project, among others), which are similar in type to those included in the 2012 and 2017 RTP/SCS.

TRPA assesses LOS for RTP updates; however, because an analysis of LOS is no longer required under CEQA, while the LOS analysis is summarized herein, no impact conclusions are provided. All seven study intersections would continue to operate at an acceptable LOS during the PM peak hour under 2045 conditions and satisfy TRPA's LOS D standard (see Table 10 of Appendix G). Generally,

delay would remain consistent with 2018 conditions, with the exception of the intersection of U.S. Highway 50 / Park Avenue, which would result in a significant reduction in delay due to the realignment of U.S. Highway 50. Therefore, study intersections would be consistent with TRPA requirements in the *Threshold Standards and Regional Plan*.

Of the 25 roadway segments, nine would operate at an unacceptable annual average daily traffic (AADT) LOS and 11 would operate at an unacceptable LOS during the peak hour under 2045 conditions. Four roadways (#10 – Route 28 between Red Cedar Drive and Lakeshore Boulevard; #16 – Route 89 between Tucker Ave and U.S. Highway 50; #20 – Route 207 between U.S. Highway 50 and Kahle Drive; and #24 – Route 89 from Twin Crags to Route 28) would operate at LOS E during the peak hour but would improve to LOS D by the 5th highest hour, which the TRPA standards allow for urban facilities. Of the 10 roadway segments categorized as Highway Capacity Manual urban facilities, six would operate at an unacceptable LOS during the 5th highest hour. In comparison to existing conditions, the following LOS changes occur in future conditions:

- Both roadway #6A and #6B reflecting the realignment and reconfiguration of U.S. Highway 50 west of Pioneer Trail would improve from LOS E in existing conditions to LOS D.
- Roadway #9, Route 28 between Spooner Lake Trail and U.S. Highway 50, would improve from LOS D to LOS C in the peak hour.
- Roadway #11, Route 28 between Cal Neva Drive and Stateline Road, deteriorates from LOS E to LOS F in the peak hour.
- Roadway #16, Route 89 between Tucker Avenue and U.S. Highway 50, deteriorates from LOS D to LOS E in peak hour in 2045.

Existing bicycle lanes and paths are present throughout the Plan Area, concentrated in South Lake Tahoe, as well as through Tahoe City, Kings Beach, and Incline Village. Bicycle facilities are proposed to connect these areas along the eastern and western boundaries of Lake Tahoe. Transit services provide service connecting all cities in the region, with additional service proposed to increase connectivity. Waterborne transit is also proposed between South Lake Tahoe, Kings Beach, and Tahoe City (TRPA 2019b). Pedestrian facilities, including sidewalks, shared-use paths, and crossings, are concentrated around urban and tourist-centered areas in the region (TRPA 2016b). The 2020 RTP/SCS would improve bicycle, pedestrian, and transit facilities consistent with the identified future facilities, by including new projects that either maintain or construct new such facilities. These projects would include sidewalks, dedicated pedestrian and bike paths, and other amenities to enhance user safety (including the following projects: Class I Bike Path: East San Bernardino - West San Bernardino, U.S. Highway 50 Sidewalk Construction - Kingsbury Grade to Lake Parkway, Lake Tahoe Boulevard Class I Bicycle Trail, Brockway Vista Multi-Use Trail, and NDOT Complete Streets Project, among others). Therefore, the 2020 RTP/SCS would be consistent with regional bicycle, pedestrian, and transit-related plans and policies in the region.

Overall, substantial and adverse impacts to bicycle, pedestrian, transit, and roadway facilities would remain less than significant and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

The 2020 RTP/SCS updates the plan’s build-out year and the forecast for per capita VMT in the Plan Area. The 2020 RTP/SCS is designed to reduce per capita VMT from residents, employees and visitors, while promoting regional goals and providing more transportation options and enhanced travel management programs. Based on the updated VMT modeling estimates (Appendix G), per capita VMT in 2045 would be 6.8% lower than the 2018 baseline with implementation of the 2020 RTP/SCS. A summary of forecasted change in per capita VMT in the Plan Area is shown in Table 15.

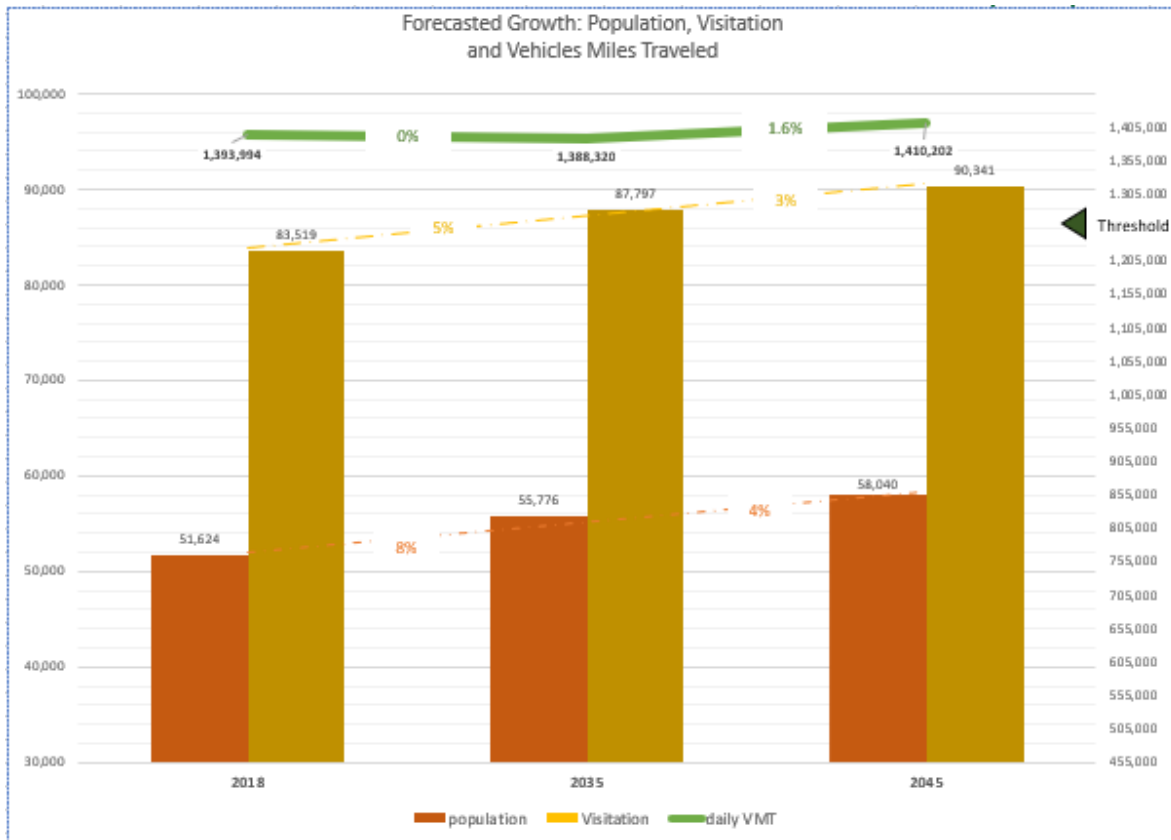
Table 15 VMT Summary

Year	VMT	Effective Population	Annual Daily Average VMT/Capita	Percent Decrease from Baseline
2018	1,483,050	118,856	12.48	N/A
2035	1,477,014	125,236	11.79	5.5%
2045	1,500,293	129,002	11.63	6.8%

The projects and programs of the 2020 RTP/SCS and forecasts for future demographics and land use were simulated in the Tahoe activity-based travel demand model and associated analysis framework to estimate per capita VMT in 2045. Those forecasts suggest that implementation of the 2020 RTP would result in a 6.8% reduction in per capita VMT by 2045. The datasets of record for evaluating progress towards threshold standard attainment are the CalTrans and NDOT VMT estimates as part of the national Highway Performance Management System, and the effective population estimate for the region derived from the Tahoe Effective Population Model. Estimates for the base year are included in Table 16. Formal forecasts for HPMS VMT and TEPM are not available, so the estimates in Table 16 were calculated by applying the percent change for 2035, 2045 from the Tahoe activity-based travel demand model to the baseline values for the threshold standard.

Because implementation of the 2020 RTP/SCS is the basis for the proposed target for the threshold standard, the 2020 RTP/SCS is consistent with the threshold standard. The 2020 RTP/SCS itself reduces auto trips and VMT through paid parking strategies, increases in free and frequent transit, enhanced trip reduction programs, and added trail connections. These VMT reduction strategies were incorporated into the Trip Reduction Impact Analysis (TRIA) tool to calculate trip reductions from the 2020 RTP/SCS that were not directly represented in the model. Prior to TRIA modeling, the 2020 RTP/SCS would have a VMT of 1,505,533. VMT reduction strategies, as modeled in TRIA, result in a VMT reduction of 95,331 as compared to pre-TRIA modeling. Therefore, strategies included in the 2020 RTP/SCS result in a net reduction in VMT by approximately six percent. The beneficial effects of the 2020 RTP would not completely offset VMT generated by anticipated population and visitation growth. The 2020 RTP/SCS curbs the increase in VMT over the 25-year plan period, specifically when compared to anticipated population and visitation to the Plan Area during the planning horizon as shown in Figure 8. From 2018 to 2045, population is anticipated to increase by 12 percent and visitation by eight percent, while VMT would decrease from 2018 to 2035 and increase by two percent from 2035 to 2045, for a net increase of 1.2 percent.

Figure 8 Forecasted Growth in VMT, Population and Visitation



LESS THAN SIGNIFICANT IMPACT

- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*

Similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS would improve overall efficiency of the transportation. Projects proposed under the 2020 RTP/SCS would similarly implement pedestrian and bicycle facilities improvements that would offer opportunities to separate pedestrian and bicycle travel from roadway travel lanes, thus reducing the potential for conflicts. These projects would include sidewalks, dedicated pedestrian and bike paths, and other amenities to enhance user safety (including the following projects: Class I Bike Path: East San Bernardino Ave. - West San Bernardino Ave., U.S. Highway 50 Sidewalk Construction - Kingsbury Grade to Lake Parkway, Lake Tahoe Boulevard Class I Bicycle Trail, and NDOT Complete Streets Project, among others). Transportation projects included in the 2020 RTP/SCS would be required to implement Mitigation Measure 3.3-1 from the 2012 RTP/SCS EIR/EIS to construct, where feasible, additional multi-modal corridor improvements (beyond those listed in the RTP projects list) should LOS monitoring project that applicable LOS goals and policies will not be met. These improvements could include modification of access control and widening and realigning roadways to improve curves that enhance roadway safety.

Individual transportation projects would be subject to project-level environmental analyses to determine project-specific impacts, including the potential for hazards, as required by the TRPA

Code. Overall, substantial and adverse impacts from traffic hazards would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project result in inadequate emergency access?

The 2020 RTP/SCS would affect the same area as previously analyzed in the 2017 RTP/SCS IS/IEC, and proposed changes to the RTP/SCS would not substantially alter the type or density of projects such that different or more severe impacts to emergency access would result. Further, the project would comply with all appropriate mitigation identified in the 2012 RTP/SCS EIR/EIS, including Mitigation Measure 3.13-5 to prepare a traffic control plan and coordinate with affected emergency response agencies. Additionally, pursuant to TRPA Code of Ordinances Section 22.7.6, *Traffic Mitigation*, construction of transportation and land use projects under the 2020 RTP/SCS requiring lane or intersection closures of a state or federal highway for more than one hour, or the closure of U.S. Highway 50 at any point between the South Y and Kingsbury Grad for any period of time, would be required to submit a traffic analysis for review that includes measures necessary to mitigate all traffic impacts to a level consistent with TRPA thresholds. Adherence to this standard would reduce potential for construction to temporarily impact emergency access. Overall, substantial and adverse impacts to emergency access would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

TRPA Environmental Checklist

SECTION 13 – TRANSPORTATION/CIRCULATION

a. Will the proposal result in generation of 100 or more new Daily Vehicle Trip Ends (DVTE)?

While individual projects in the RTP could generate over 100 new vehicle trips to a particular location, such as a new destination bike trail, the 2020 RTP/SCS is designed to reduce vehicle trips overall. This would be achieved through transportation corridor management planning, including improved transit, parking management, and real time travel information TRPA anticipates implementation of the 2020 RTP/SCS would reduce vehicle trips by six percent by 2045 as compared to not implementing these strategies. As a result, implementation of the project would reduce VMT that is anticipated in the region from increased population and visitation growth.

More specifically, the 2020 RTP/SCS would not alter any land uses beyond those envisioned by the 2017 RTP/SCS that would generate daily trips in the long-term. In addition, the purpose of the bicycle and transit projects included in the 2020 RTP/SCS is to reduce daily vehicle trips within the Plan Area. Although construction of projects under the 2020 RTP/SCS would generate additional vehicle trips, these trips would be temporary. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS

IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts.

NO

b. Will the proposal result in changes to existing parking facilities, or demand for new parking?

Similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS would also include projects that would decrease the demand for parking and projects that would increase or improve parking facilities (including Camp Richardson Resort and Campground BMPs and Retrofit, Route 28 Central Corridor Improvements – Sand Harbor to Spooner State Park, and Mobility Hub and Transit Center Capital). Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. In addition, individual projects would be required to complete project specific environmental review and comply with local jurisdictional standards, which would further reduce impacts.

NO

c. Will the proposal result in substantial impact upon existing transportation systems, including highway, transit, bicycle or pedestrian facilities?

As discussed above under CEQA item “a,” all study intersections would operate acceptably while 14 of the roadway segments would operate unacceptably, and the 2020 RTP/SCS would improve bicycle, pedestrian, and transit facilities consistent with existing goals and policies. Unacceptable roadway segments were considered in the 2012 RTP/SCS EIR/EIS. The 2020 RTP/SCS would improve bicycle, pedestrian, and transit facilities consistent with the identified future facilities, by including new projects that either maintain or construct new such facilities. Overall, substantial and adverse impacts to roadway facilities would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO

d. Will the proposal result in alterations to present patterns of circulation or movement of people and/or goods?

As discussed above under CEQA item “a,” all study intersections would operate acceptably while 14 of the roadway segments would operate unacceptably. Projects included in the 2020 RTP/SCS would also be subject to Mitigation Measure 3.13-5, which requires the preparation and implementation of traffic control plans to address construction-related traffic impacts in roadway rights-of-way. This would ensure adequate circulation is provided during potential roadway disruptions during construction activities. Overall, impacts to roadway facilities would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO

e. Will the proposal result in alterations to waterborne, rail or air traffic?

The 2020 RTP/SCS would include many of the same projects as under the 2017 and 2012 RTP/SCS. New and or modified projects that would require construction include new bicycle, pedestrian, transit, and roadway infrastructure and corridor revitalization projects, which are similar in type to those included in the 2012 and 2017 RTP/SCS. No rail or air traffic alterations are proposed under the 2020 RTP/SCS, and the development of various transit, bicycle, pedestrian, and roadway improvements would not impede existing or proposed waterborne, rail, or air traffic operations. Additionally, the TTD Transit Capital Enhancements and Fleet Replacement and North Shore Water Taxi Project Phase 2035 projects would improve existing water taxi services. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

f. Will the proposal result in increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?

As discussed above under CEQA items “a” and “d,” the 2020 RTP/SCS would improve overall safety of the transportation system. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific

design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

This page intentionally left blank.

18 Tribal Cultural Resources

Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	2012 RTP/SCS EIR/EIS Impact 3.15-5	No	No	No	Yes
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	2012 RTP/SCS EIR/EIS Impact 3.15-5	No	No	No	Yes

Discussion

Tribal consultation, if requested as provided in Public Resources Code Section 21080.3.1, must begin prior to release of a negative declaration, mitigated negative declaration, or environmental impact report for a project. Information provided through tribal consultation may inform the lead agency’s assessment as to whether tribal cultural resources are present, and the significance of any potential impacts to such resources. Prior to beginning consultation, lead agencies may request information from the Native American Heritage Commission regarding its Sacred Lands File, per Public Resources

Code sections 5097.9 and 5097.94, as well as the California Historical Resources Information System administered by the California Office of Historic Preservation.

The Washoe Tribe of Nevada and California is an important partner in transportation planning at Lake Tahoe, as Lake Tahoe is the traditional center of the Washoe world. The Tribe owns and manages land in the Plan Area, such as Skunk Harbor and operates Meeks Bay Resort under an agreement with the USFS. Washoe are the original inhabitants of the Lake Tahoe Region. The Tribe and TRPA have acknowledged the mutual benefit of a formalized process for communication for land, transportation, and resource management decision making and other governmental relations. Both parties have a strong interest in the protection of social, biological, and Tribal cultural resources in the Lake Tahoe Region and recognize that collaboration and cooperation is the best method to achieve these goals.

For the 2020 RTP/SCS, TRPA engaged the Washoe tribe on the overall RTP strategy and more specifically, on the Route 89 project. The Tribe is interested in including education and interpretation along the transportation corridors and has identified a need for a Washoe Cultural site at Meeks Bay and Taylor Creek. TRPA will continue to engage the Tribe as the East Shore Corridor Plan develops along U.S. Highway 50.

Pursuant to AB 52 requirements, TRPA sent out letters on March 19, 2020 to the following tribes in the region: Auburn Rancheria, Bridgeport Paiute, Browns Valley, Shingle Springs, Colfax, Nashville Enterprise, Walker River, and the Washoe. TRPA did not received comment on any 2020 RTP/SCS project and the comment period ended on April 18, 2020.

CEQA Environmental Checklist

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?*

Potential impacts related to ethnic and cultural values as they relate to tribal cultural resources were evaluated in the 2012 RTP/SCS EIR/EIS Impact 3.15-5. Similar to the 2012 RTP/SCS, implementation of the 2020 RTP/SCS would authorize new development that has the potential to cause physical changes that would affect unique ethnic cultural values or restrict historic or prehistoric religious or sacred uses within the region. Because the 2020 RTP/SCS would result in some new construction over the planning period, new development has the potential to disturb, disrupt, or restrict ethnic and cultural uses and values through implementation of specific transportation projects. Projects under the 2020 RTP/SCS would be required to comply with federal and state regulations and TRPA Code standards for the protection of tribal resources and provide processes to avoid or minimize impacts to these resources. TRPA Code Standard 67.3.2 requires projects in areas with known or newly discovered sites of cultural significance include a site survey prior to TRPA approval. This standard also requires consultation with the Washoe Tribe on all site surveys to determine if tribally significant sites are present. If resource(s) are discovered and deemed significant, then a resource protection plan is required. TRPA Code Standard 67.3.3 requires

this plan be prepared by a qualified professional and may provide for surface or subsurface recovery of data and artifacts and recordation of structural and other data.

As identified in Section 5, *Cultural Resources*, project activities could still uncover or destroy historic or archaeological resources during grading and excavation, pile driving, and heavy equipment use or include alignments that overlap existing historical resources. Additionally, although standards are in place to protect human remains, project activities could still result in accidental discovery during grading and excavation. Accidentally discovered remains could be of Native American origin.

Implementation of Mitigation Measures 3.15-1a, 3.15-1b, 3.15-1c, 3.15-2a, 3.15-2b, 3.15-2c, 3.15-2d, and 3.15-3 from the 2012 RTP/SCS would reduce impacts to cultural and ethnic values, similar to the 2017 RTP/SCS, because they would require consultation with the Native American Heritage Commission and the Washoe Tribe; require avoidance, preservation in place, excavation, documentation, and/or data recovery of historical and archaeological resources; and require assessment of and adherence to a formal recommendation for any discovered human remains. Overall, substantial and adverse impacts to tribal cultural resources would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

TRPA Environmental Checklist

There are no TRPA environmental checklist items specific to this topic.

This page intentionally left blank.

19 Utilities and Service Systems

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Would the project:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	2012 EIR/EIS Impact 3.13-1, 3.13-4	No	No	No	Yes
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	2012 EIR/EIS Impact 3.13-2	No	No	No	N/A
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	2012 EIR/EIS Impact 3.13-4	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	2012 EIR/EIS Impact 3.13-3	No	No	No	N/A
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	2012 EIR/EIS Impact 3.13-3	No	No	No	N/A

TRPA Environmental Checklist: Section 16 – Utilities

Except for planned improvements, will the proposal result in a need for new systems, or substantial alterations to the following utilities:

a. Power or natural gas?	Section 3.13.4, Issues dismissed from Further Evaluation	No	No	No	N/A
b. Communication systems?	Section 3.13.4, Issues dismissed from Further Evaluation	No	No	No	N/A
c. Utilize additional water which amount will exceed the maximum permitted capacity of the service provider?	2012 EIR/EIS Impact 3.13-2	No	No	No	N/A
d. Utilize additional sewage treatment capacity which amount will exceed the maximum permitted capacity of the sewage treatment provider?	2012 EIR/EIS Impact 3.13-4	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
e. Storm water drainage?	2012 EIR/EIS Impact 3.8-2	No	No	No	Yes
f. Solid waste and disposal?	2012 EIR/EIS Impact 3.13-3	No	No	No	N/A

Discussion

Projects included in the 2020 RTP/SCS could include the extension of existing, or construction of new electric, gas, water, wastewater, and stormwater infrastructure to serve new transportation facilities, such as the improvements to the Lake Tahoe Community College transfer terminal in conjunction with the college or bathroom and water fountains associated with new bike trails and other trailhead locations. Because the 2020 RTP/SCS is not a growth-inducing plan (Chapter 5 of the 2012 RTP EIR/EIS, “Other TRPA- and CEQA-Mandated Sections”), impacts associated with implementation of the 2020 RTP/SCS would not be expected to cause substantial long-term effects to existing utility systems. Section 3.13.4 of 2012 RTP EIR/EIS included issues dismissed from further evaluation as the project would result in no impact; these included impacts to existing utility systems and increases in long-term solid waste production.

Projects new to the 2020 RTP/SCS that may have utility impacts include the connector trails throughout the Plan Area and corridor and community improvements, such as sidewalks, parking management, and signage, and street and roadway maintenance associated with projects like the Bike and Pedestrian Facilities project in Placer County and the Improved Parking Management and Wayfinding in Tahoe City. Most of these would either have no utility impact or would improve existing conditions, as discussed below.

Projects under the 2020 RTP/SCS must comply with Chapter 32, Basic Services, of the TRPA Code of Ordinances which establishes standards for water, wastewater treatment, and electrical services. Sections 32.4 and 32.5 of the TRPA Code contain a basic water service and wastewater requirement for projects proposing construction of a new structure or reconstruction or expansion of an existing structure, designed or intended for human occupancy. Although TRPA does not specifically regulate the provision of electrical services in the Plan Area, Section 32.6 of the Code directs that projects proposing construction of a new structure or reconstruction or expansion of an existing structure designed or intended for human occupancy shall be served by facilities to provide adequate electrical supply. Projects would also be subject to local jurisdiction utilities standards as well as state and federal regulations.

CEQA Environmental Checklist

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The 2012 RTP/SCS EIR/EIS planned for increased population through the 2020 and 2035 planning horizons that was not met by actual growth rates. Instead population in the Plan Area declined between 2010 and 2020. Population growth that would occur during the 2045 planning horizon would be commensurate with that anticipated in the earlier analyses. Therefore, there would be no need for expansion of existing facilities because new and modified projects in the 2020 RTP/SCS are within the capacity previously analyzed for the RTP/SCS. The 2012 EIR/EIS anticipates the implementation of new or expanded stormwater facilities and sediment control projects. The 2020 RTP/SCS projects include some drainage system projects such as the Caltrans Pavement Preservation project. Otherwise, as for the 2012 and 2017 RTP/SCS, no new utilities that include electric power, natural gas, or telecommunications facilities would be necessary, because the transportation projects proposed under the 2012 and 2017 RTP/SCS did not involve new housing or other facilities that would require such facilities. Similarly, new and modified projects under the 2020 RTP/SCS are similar in scope, location, and nature to those analyzed as part of the 2012 and 2017 RTP/SCS. Furthermore, these include projects that support transportation, recreation, and sustainable communities initiatives and include maintenance projects that would resurface roadways and improve safety signage, for example. A need for increased, new, or physically altered utilities would not occur under the 2020 RTP/SCS, and no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

The 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC determined that projects under the RTP/SCS would not result in the need to construct new electric power, natural gas, or telecommunications facilities or to expand existing facilities, as implementation of the RTP/SCS would not result in a substantial increase in permanent resident population. Because projects under the 2020 RTP/SCS will be similar in nature, scale, and location to those analyzed in these previous two reports, and projects implemented will require site specific design and mitigation, impacts to electric power, natural gas, or telecommunications facilities would be less than significant.

Similar to the 2012 and 2017 RTP/SCS new and modified projects proposed under the 2020 RTP/SCS would have potential impacts to related to demand for wastewater collection and treatment, based on the potential, but unknown, increase in public restroom use associated with bicycle paths, recreation projects, and other community improvement projects. Mitigation Measure 3.13-4 from the 2012 RTP/SCS would apply to projects under the 2020 RTP/SCS and allow for anticipation of new wastewater collection and treatment demand based on anticipated increases in public restroom use for each project and assure needs would be met on a project-by-project basis. Overall, substantial and adverse impacts to utility services would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT IMPACT

- b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Similar to the 2012 and 2017 RTP/SCS implementation of proposed transportation improvements and future projects facilitated by the land use scenario envisioned in the 2020 RTP/SCS could result in both short-term and long-term impacts to water supply in the Plan Area. Implementation of new and modified projects under the 2020 RTP/SCS could require water supply for construction activities and water supply to serve toilets, sinks, spigots, and stormwater facilities and maintenance activities. These projects are not expected to require an excess amount of water that would substantially reduce the public water supply. However, Chapter 32.4 of the TRPA Code of Ordinances requires that new development only be approved based on the distribution and storage of water in quantities and of quality adequate for domestic consumption and fire protection, including meeting adequate minimum fire flow requirements. Because all projects would be subject to individual assessments of their water demands and similar in type and scale to projects in the 2012 and 2017 RTP/SCS projects under the 2020 RTP/SCS would have sufficient water supply. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- c. *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Similar to the 2012 and 2017 RTP/SCS, new and modified projects under the 2020 RTP/SCS could generate need for increased wastewater collection and treatment. Mitigation Measure 3.13-4 from the 2012 RTP/SCS would require project-specific approvals for wastewater collection and/or treatment be implemented from projects under the 2020 RTP/SCS. Overall, substantial and adverse impacts to wastewater treatment would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- d. *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

The 2020 RTP/SCS would implement transportation projects that would not generate substantial increased solid waste during operation as they would not be associated or create new sources of substantial solid waste disposal, such as residential or commercial development. Furthermore, projects under the 2020 RTP/SCS are not growth-inducing projects in and of themselves and would not be substantial generators of solid waste. During project construction solid waste could be generated that would need to be disposed of at local landfills or transported to construction waste recycling facilities. Construction projects would be required to recycle materials per CalGreen regulations, which require 65 percent of non-hazardous construction and demolition waste to be recycled or salvaged for reuse.

Projects would also be required to meet local construction and demolition waste management ordinances, if they are more stringent (CalRecycle 2020). According to a 2013 GHGs reduction gap analysis, no current TRPA codes govern construction and demolition recycling, although the City of South Lake Tahoe, Placer County, and El Dorado County all require recycling or salvage of 50 percent minimum non-hazardous construction and demolition debris, and the completion of a construction waste management plan for the project (Sierra Business Council 2013). Douglas County has a program to divert concrete and asphalt from landfills. The analysis further recommends best practices that include requirements to reuse materials on site and to recycle or salvage 65 to 80 percent of non-hazardous materials, and 100 percent of asphalt and concrete. The 2012 RTP/SCS indicated that “planned facility expansions at Lockwood Regional Landfill and proposed strategies to reduce solid waste production in the region would allow for sufficient capacity over the next 20 years” (TRPA 2012). The planning horizon under the 2020 RTP/SCS extends an additional 13 years, which is beyond the analysis in the 2012 EIR/EIS. Nonetheless, because the 2020 RTP/SCS does not include projects that induce growth (e.g., residential development) and because the amount of growth anticipated through 2045 is within the growth projections made in the 2012, the need for additional solid waste facilities is not anticipated.

The State of Nevada Solid Waste Management Plan encourages ongoing and increased recycling efforts, with special mention of waste generated in Douglas and Washoe counties (State of Nevada 2017). The Lockwood Landfill promotes separation and recycling of construction waste, including that associated with transportation projects, diverting these wastes from landfill deposit (Waste Management 2020). The laws in California that govern solid waste disposal focus more specifically on recycling than do those in Nevada. Even though solid waste from the Plan Area is exported to landfills in Nevada, 2020 RTP/SCS policies indicate that solid waste disposal will be governed by “existing state policies and laws,” meaning that the more exacting recycling approach would be applied to construction materials recycling for any projects that generate those materials. Between expanded capacity and recycling policies, capacity at regional landfills continues to be adequate to support projects implemented under the 2020 RTP/SCS. With adherence to recycling policies and diverting construction debris, projects associated with the 2020 RTP/SCS would not impair or otherwise impact solid waste reduction goals. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as those under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Projects implemented under the 2020 RTP/SCS would continue to abide by policies that relate to solid waste exportation and reduction. Please refer to CEQA item “d” above for a discussion of solid waste impacts. Because projects under the 2020 RTP/SCS will be similar in nature, scale, and location and will require site specific design, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

Section 16 – Utilities

Except for planned improvements, will the proposal result in a need for new systems, or substantial alterations to the following utilities:

a. Power or natural gas?

The 2020 RTP/SCS would implement transportation projects that would not generate substantial increased need for electric or natural gas supply because growth projections for the 2020 RTP/SCS fall within those analyzed in 2012. Please refer to Section 6, *Energy*, for a more detailed discussion of electrical power and natural gas impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as those under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

b. Communication systems?

The 2020 RTP/SCS would implement transportation projects that would not generate substantial increased use of communication systems because growth projections for the 2020 RTP/SCS fall within those analyzed in 2012. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as those under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

c. Utilize additional water which amount will exceed the maximum permitted capacity of the service provider?

The 2020 RTP/SCS would implement transportation projects that would not generate water use over maximum permitted capacities. Refer to CEQA item “b” above for a discussion of water demand impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as those under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

d. Utilize additional sewage treatment capacity which amount will exceed the maximum permitted capacity of the sewage treatment provider?

As discussed under CEQA item “a” above and similar to the 2012 and 2017 RTP/SCS, new and modified projects proposed under the 2020 RTP/SCS would have potential impacts related to demand for wastewater collection and treatment, based on the potential, but unknown, increase in public restroom use associated with bicycle paths, recreation projects, and other community improvement projects. Mitigation Measure 3.13-4 from the 2012 RTP/SCS would apply to projects under the 2020 RTP/SCS and allow for anticipation of new wastewater collection and treatment demand based on anticipated increases in public restroom use for each project and assure needs would be met on a project-by-project basis. Overall, substantial and adverse impacts to utility

services would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. With mitigation, maximum permitted capacity would not be exceeded with project implementation.

NO WITH MITIGATION

e. Storm water drainage?

The 2020 RTP/SCS would implement transportation projects that could generate increased need for storm water drainage, as discussed above. Refer to CEQA item “b” above for a discussion of storm water drainage impacts and the project-specific mitigation required. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as those under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO WITH MITIGATION

f. Solid waste and disposal?

The 2020 RTP/SCS would implement transportation projects that would not generate increased need for solid waste disposal, beyond that discussed in CEQA item “d” above, related to construction and demolition debris. Although TRPA codes do not regulate disposal of construction and demolition maintenance, enforcement of BMPs to reuse or recycle construction waste, as discussed in CEQA item “d” above would reduce impacts. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as those under the 2012 RTP/SCS, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

20 Wildfire

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	2012 RTP/SCS EIR/EIS Impact 3.13-5	No	No	No	N/A
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	2012 RTP/SCS EIR/EIS Impact 3.14-3	No	No	No	N/A
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	2012 RTP/SCS EIR/EIS Impact 3.14-3	No	No	No	N/A
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	2012 RTP/SCS EIR/EIS Impact 3.14-3	No	No	No	N/A

Discussion

According to the 2012 RTP/SCS EIR/EIS, the Lake Tahoe Region is considered a “fire environment” because of the climate, steep topography, and high level of available fuel. The threat of catastrophic fire has been identified as the number one public concern in the Lake Tahoe Region. The combination of large amounts of hazardous fuels and one of the highest ignition rates in the Sierra Nevada, particularly in urban areas, contributes to the risk of a devastating wildfire. Region-wide fire modeling to evaluate the likely effects of unplanned fires on urban areas has shown that the most severe fires, and therefore the most catastrophic effects, would occur in lower elevation pine and mixed conifer forests.

In June 2007, the Angora Fire began from an unattended campfire near the North Upper Truckee Road subdivision near Angora Lakes, Fallen Leaf Lake, Echo Lake, and South Lake Tahoe. The fire initially spread 4 miles in three hours and burned more than 250 structures on private property, including more than 200 homes. Containment required several days. Most of the 3,072 acres within the fire perimeter involved USFS lands, but about 300 urban lots owned by USFS, the California Tahoe Conservancy, California State Parks, and El Dorado County, and 231 acres of private property also burned (California Department of Forestry and Fire Protection [CAL FIRE] 2007).

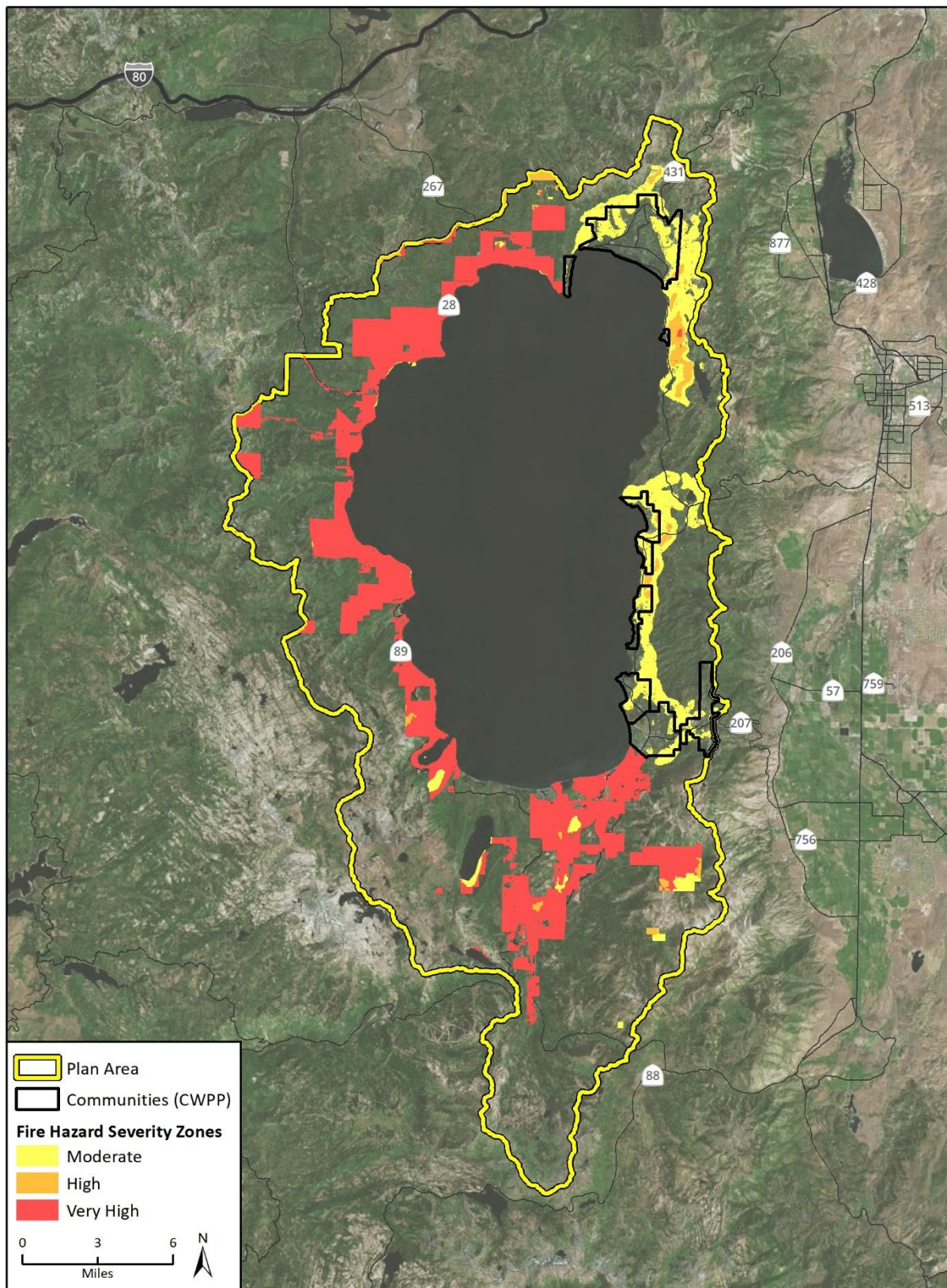
In California, CAL FIRE has established Fire Hazard Severity Zones (FHSZ) for the entire state, including the California portion of the Plan Area. FHSZs assess wildland fire potential based on fuel load, climate, and topography. The classification system provides three classes of fire hazards: Moderate, High, and Very High.

Nevada does not have an equivalent FHSZ classification system for fire hazards. However, in the Nevada portion of the Plan Area, the Nevada Division of Forestry has identified communities in areas of extreme, high, and moderate fire risk. These communities have been included in Community Wildfire Protection Plans (CWPPs) developed for these areas. Figure 9 shows the potential threat of wildfire in the Plan Area as determined by the CWPPs and CAL FIRE FHSZs. The CWPPs include provisions for defensible space, fire safe landscaping, homeowner tips, and fire safety guidelines.

The Lake Tahoe West Restoration Partnership is a multi-agency, collaborative effort to increase the resilience of the forests, watersheds, recreational opportunities, and communities on Lake Tahoe’s west shore. The West Shore landscape, 60,000 acres of over dense second growth forest, is vulnerable to high-severity wildfire, drought, climate change, and forest insect and disease outbreaks. The Lake Tahoe West Restoration Project will use forest thinning, prescribed burning, reforestation, and habitat restoration of forests, meadows, streams, and wildlife habitat to improve the landscape’s resilience to future disturbances from wildfire.

With the severity of fires growing season over season, forest management and fire agencies at every level of government have been looking at the efficiency of forest practice rules and regulations. TRPA similarly has been streamlining, removing redundancy, and adding best practices to its forest practices Code for the Plan Area. TRPA has worked collaboratively with the regulations working group of the Tahoe Fire and Fuels Team to amend TRPA Code of Standards Chapter 61.3, Vegetation Protection and Management. In May 2020, staff presented proposed amendments to Chapter 61.3. to the Governing Board Forest Health and Wildfire Committee for discussion and direction. Staff brought proposed Chapter 61.3. code language back to the committee in July 2020 for approval and recommendation to the full Governing Board, although the revised language has not yet been adopted.

Figure 9 Fire Hazards in the Plan Area



Imagery provided by Microsoft Bing and its licensors © 2020.

Fig. 9 Fire Hazards in the Plan Area

Appendix G guidelines published in December of 2018 require that environmental analysis include a discussion of the potential wildfire impacts of proposed projects, with emphasis on avoiding impairment of an emergency response plan, reducing risk of uncontrolled spread of a wildfire, and requiring installation of associated infrastructure that may exacerbate fire risk. The 2012 EIR/EIS and 2017 IS/IEC did not include a separate section analyzing potential environmental impacts related to the topic of wildfire because it was not required under the CEQA Guidelines in effect at the time of the 2012 and 2017 analysis. The topic of emergency response plans or emergency evacuation plans was, however addressed in Impact 3.13-5 of the 2012 EIR/EIS. Also, the topic of exposing people or structures to significant risks was addressed in impact 3.14-3 of the 2012 EIR/EIS.

New or modified projects included in the 2020 RTP/SCS would require construction and long-term maintenance of bikeway improvements, new bike trails, new pedestrian paths and sidewalks, new transit terminals, and new traffic signage.

CEQA Environmental Checklist

- a. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

As described in Section 2, *Project Description*, above, the 2020 RTP/SCS is an update to the current 2017 RTP/SCS and includes changes in transportation projects to address the needs of the region and future land use patterns. The 2020 RTP/SCS land use scenario, similar to that contained in the 2012 RTP/SCS and the 2017 RTP/SCS, concentrates the forecasted growth in population and employment in already urbanized areas. However, as evidenced by an increase in wildfires including the 2018 Camp Fire in Butte County, urban areas are also susceptible to wildfires, despite the lower abundance of typical wildfire fuels.

New and modified transportation projects included in the 2020 RTP/SCS would involve the construction of transportation facilities including trails, bikeways, pedestrian facilities, and other non-motorized paths, as well as improvements to existing roadways and bridges. While the majority of these projects would be in urbanized areas, some projects would inevitably be located in areas at risk of wildfires. As shown on Figure 9 above, CAL FIRE has mapped the majority of the shoreline including urbanized areas as Very High FHSZ in State and Local Responsibility Areas (CAL FIRE 2020). Additionally, on the Nevada side of the Plan Area, several shoreline areas are included in areas of high fire risk and are incorporated in CWPPs.

The most recent Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy was adopted in 2014 and is a unified multi-jurisdictional strategic synopsis of various planning efforts to address wildfire in the Lake Tahoe Region. A goal of the Strategy is to provide effective and efficient wildfire response by ensuring that all jurisdictions participate in making and implementing safe, effective, and efficient risk-based wildfire management decisions. All the local fire agencies under the Strategy individually have adopted community wildfire protection plans as their primary wildland fire prevention and mitigation documents. In addition, any new planning project requiring a TRPA permit must first provide their local fire department a site plan that includes plans for creating defensible space as well as emergency site access.

Impact 3.14-3 of the 2012 RTP/SCS EIR EIS notes that implementation of the 2012 RTP/SCS would result in some new development that could increase the demand for fire protection. However, this previous environmental analysis concluded that as with other project development, environmental review of specific public facility projects would be required to ensure that impacts to emergency

response are identified in coordination with local fire departments and mitigated. Additionally, construction activities would not increase fuel loading or reduce defensible space in the Plan Area. The 2020 RTP/SCS would have similar requirements such that where construction of transportation infrastructure or systems are developed, project level environmental analysis would be conducted to ensure that preexisting emergency evacuation routes are maintained.

The increase in population anticipated under the land use scenario for the 2020 RTP/SCS is within the anticipated growth forecasts for the 2012 RTP/SCS and 2017 RTP/SCS and is therefore accounted for with existing fire and emergency response services. Therefore, the population increase projected under the 2020 RTP/SCS land use scenario would not impair adopted emergency response and emergency evacuation plans, as it is within the growth projections of adopted plans. As described in Section 9, *Hazards and Hazardous Materials*, all projects under the 2020 RTP/SCS would be required to prepare and implement a TCP such that construction activities are coordinated with local agencies to ensure emergency access is not substantially deteriorated. Additionally, pursuant to TRPA Code of Ordinances Section 22.7.6, *Traffic Mitigation*, construction of transportation and land use projects under the 2020 RTP/SCS requiring lane or intersection closures of a state or federal highway for more than one hour, or the closure of U.S. Highway 50 at any point between the South Y and Kingsbury Grad for any period of time, would be required to submit a traffic analysis for review that includes measures necessary to mitigate all traffic impacts to a level consistent with TRPA thresholds. Adherence to this standard would reduce potential for construction to temporarily impair implementation of an emergency response or evacuation plan.

Adherence to Mitigation Measure 3.13-5 from the 2012 RTP/SCS would reduce short-term impacts to the implementation of an emergency response or evacuation plan because individual projects would be required to prepare a TCP such that construction activities are coordinated with affected agencies to ensure emergency response times are not substantially deteriorated. Overall, substantial and adverse impacts related to emergency response or evacuation would remain less than significant with implementation of existing TRPA policies and mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

New and modified transportation projects included in the 2020 RTP/SCS would involve the construction of transportation facilities including trails, bikeways, pedestrian facilities, and other non-motorized paths, as well as improvements to existing roadways and bridges. While the majority of these projects would be in urbanized areas, some projects would inevitably be located in areas at risk of wildfires. As shown above in Figure 9, CAL FIRE has mapped the majority of the shoreline including urbanized areas as Very High FHSZ in State and Local Responsibility Areas (CAL FIRE 2020). Additionally, on the Nevada side of the Plan Area, several shoreline areas are included in areas of high fire risk and are incorporated in CWPPs.

As described in Section 9, *Hazards and Hazardous Materials*, in all cases where construction of transportation infrastructure or systems are developed, project level environmental analysis would be conducted to ensure wildfire risk has been identified, and that projects adhere to regulations

related to protection of the environment and public from pollutant concentration. The 2020 RTP/SCS, the only project including habitable structures in the 2020 RTP/SCS is the Caltrans Tahoe City Maintenance Station project which would demolish existing employee housing and construct a new dormitory building. This project in addition to other development in the Plan Area may be subject to wildfire risk. Any new construction, including residences or commercial uses would be subject to the California Fire Code and the International Fire Code, as adopted by NRS 477.030. These regulations include safety measures to minimize the threat of fire, including ignition-resistant construction with exterior walls of noncombustible or ignition resistant material from the surface of the ground to the roof system and sealing any gaps around doors, windows, eaves and vents to prevent intrusion by flame or embers. Title 14 of the California Code of Regulations sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures or life by reducing wildfire hazards.

Similar to the 2012 and 2017 RTP/SCS, new and modified projects under the 2020 RTP/SCS would be required to adhere to the policies and standards for maintaining defensible space and reducing fuel load. Specifically, Natural Hazards, Goal 1, Policy 3 of the Land Use Element of TRPA’s Regional Plan that encourages the use of fire-resistant materials and fire preventative techniques when constructing structures, especially in the highest fire hazard areas. This policy also requires that forest fuels are managed to be consistent with state laws and other goals and policies of the Regional Plan. TRPA Code of Ordinances Section 61.3.6(D), *Vegetation Management to Prevent the Spread of Wildfire*, requires that in areas of significant fire hazard, as determined by local, state, or federal fire agencies, flammable or other combustible vegetation shall be removed, thinned, or manipulated in accordance with local and state law. Adherence to the requirements of these codes and regulations would reduce the risk of loss, injury or death from wildfire for new development envisioned by the 2020 RTP/SCS.

As described above under CEQA item “a,” projects included in the 2020 RTP/SCS would be developed to support emergency preparedness and response planning related to wildfire. With implementation of emergency preparedness policies included in the 2020 RTP/SCS and adherence to fire codes and regulations, the risk of pollutants due to wildfire would be reduced to a less than significant level. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- c. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

As described in Section 2, *Project Description*, above, the 2020 RTP/SCS is an update to the current 2017 RTP/SCS and includes changes in transportation projects to address the needs of the region and future land use patterns. Similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS land use scenario concentrates the forecasted growth in population and employment in already urbanized areas. New and modified transportation projects included in the 2020 RTP/SCS would involve the construction of transportation facilities including trails, bikeways, pedestrian facilities, and other non-motorized paths, as well as improvements to existing roadways and bridges. Additionally, as

described in Section 19, *Utilities and Service Systems*, the 2020 RTP/SCS would not require installation of new power line or other utilities that may exacerbate wildfire risk.

When construction of transportation infrastructure or systems under the 2020 RTP/SCS are developed, project level environmental analysis would be conducted to ensure wildfire risk has been identified, and that projects adhere to regulations including requirements for defensible space and emergency access. As described above under CEQA item “a,” projects included in the 2020 RTP/SCS would be developed to support emergency preparedness and response planning related to wildfire. With implementation of emergency preparedness policies included in the 2020 RTP/SCS and adherence to fire codes and regulations, the potential for exacerbated wildfire risk due to installation or maintenance of infrastructure would be reduced to a less than significant level. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

- d. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

New and modified transportation projects included in the 2020 RTP/SCS would involve the construction of transportation facilities including trails, bikeways, pedestrian facilities, and other non-motorized paths, as well as improvements to existing roadways and bridges. Similar to the 2012 and 2017 RTP/SCS, the 2020 RTP/SCS land use scenario concentrates the forecasted growth in population and employment in already urbanized areas. The 2020 RTP/SCS land use scenario would continue to concentrate development within community centers, consistent with the current development pattern, and the location, distribution, density, and growth of the human population in the Plan Area would be expected to remain similar to those under the existing conditions. Therefore, new areas of the Plan Area would not be opened to substantial development and, as described in Section 14, *Population and Housing*, increases in the Plan Area population would be limited by the development rights and allocations.

Although population is projected to increase under the land use scenario for 2020 RTP/SCS, the only project including habitable structures in the 2020 RTP/SCS is the Caltrans Tahoe City Maintenance Station project which would demolish existing employee housing and construct a new dormitory building. This project in addition to other development in the Plan Area may be subject to wildfire risk. All proposed development would be assessed on a project-by-project basis and would be subject to site specific environmental analysis to ensure the project conforms to all existing regional and local regulations to minimize impacts due to adverse effects involving flooding or landslides, post-fire slope instability, or drainage changes. Construction projects in the Plan Area would be required to meet multiple requirements and regulations of the TRPA, LRWQCB (in California), NDEP (in Nevada), and federal and local agencies. These requirements include preparation of a SWPPP pursuant to the NPDES Phase II Stormwater Program for projects larger than one acre and the implementation of BMPs for sediment and erosion control. Per requirements of TRPA Code Section 33.4, future development would be required to undergo site-specific geotechnical analysis, and if applicable, employ design standards that consider seismically active areas and comply with current California and Nevada building codes and local jurisdictional seismic standards.

New and modified projects under the 2020 RTP/SCS would be required to adhere to the policies and standards for maintaining defensible space and reducing fuel load. Specifically, Natural Hazards, Goal 1, Policy 3 of the Land Use Element of TRPA's Regional Plan that encourages the use of fire-resistant materials and fire preventative techniques when constructing structures, especially in the highest fire hazard areas. This policy also requires that forest fuels are managed to be consistent with state laws and other goals and policies of the Regional Plan to reduce wildfire risk. TRPA Code of Ordinances Section 61.3.6(D), *Vegetation Management to Prevent the Spread of Wildfire*, requires that in areas of significant fire hazard, as determined by local, state, or federal fire agencies, flammable or other combustible vegetation shall be removed, thinned, or manipulated in accordance with local and state law.

Additionally, as development continues throughout the Plan Area, projects would be required to consider regional fire hazards and include measures to ensure that defensible space is maintained, and excessive fuel is reduced. In California, Public Resources Code 4291 requires 100 feet of defensible space around homes in high fire risk areas. Additionally, in Washoe County, Nevada, all projects requiring a building permit must establish and maintain defensible space surrounding structures in accordance with the 2018 International Wildland Urban Interface Code.

As described above under CEQA item "a," projects included in the 2020 RTP/SCS would be developed to support emergency preparedness and response planning related to wildfire. With implementation of emergency preparedness policies included in the 2020 RTP/SCS and adherence to fire codes and regulations, the potential for flooding or landslides, post-fire slope instability, or drainage changes due to wildfires would be reduced to a less than significant level. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond what was previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

LESS THAN SIGNIFICANT IMPACT

TRPA Environmental Checklist

There are no TRPA environmental checklist items specific to this topic.

21 Mandatory Findings of Significance

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
--	----------------------------	---	---	--	---

CEQA Environmental Checklist

Does the project:

a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	2012 EIR/EIS Impact 3.10-1, 3.10-2, 3.10-3, 3.10-4, 3.15-1, 3.15-2, 3.15-3	No	No	No	Yes
b. Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	2012 EIR/EIS Chapter 4.3	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?	
c.	Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	2012 EIR/EIS Impacts in Chapters 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.11, 3.12, 3.13, 3.14, 3.15	No	No	No	Yes

TRPA Environmental Checklist: Section 21 – Findings of Significance

a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California or Nevada history or prehistory?	2012 EIR/EIS Impact 3.10-1, 3.10-2, 3.10-3, 3.10-4, 3.7-4	No	No	No	Yes
b.	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future.)	2012 EIR/EIS Chapter 4.3	No	No	No	Yes

	Where was Impact Analyzed?	Do Proposed Changes Require Major Revisions to the 2017 IS/IEC?	Do New Circumstances Require Major Revisions to the IS/IEC?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS/IEC Mitigation Measures Address and/or Resolve Impacts?
c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environmental is significant?)	2012 EIR/EIS Chapter 4.3	No	No	No	N/A
d. Does the project have environmental impacts which will cause substantial adverse effects on human being, either directly or indirectly?	2012 EIR/EIS Impacts in Chapters 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.11, 3.12, 3.13, 3.14, 3.15	No	No	No	Yes

Discussion

This section presents the analysis for mandatory findings of significance and if new circumstances would result in new impacts, whether new information has arisen that requires further analysis or verification, and if mitigation adopted in the 2012 RIP EIR/EIS would resolve any identified impacts.

The 2020 RTP/SCS contains policies, programs, and projects that would result in long-term environmental benefits and protection of environmental resources in the Plan Area. As discussed throughout this document, changes in projects from the 2017 RTP/SCS may result in different site-specific impacts that could require implementation of mitigation measures to ensure protection of the environment. Projects new to the 2020 RTP/SCS include several active transportation initiatives, community and corridor projects, some operations and maintenance projects, and technology projects. Many of these support ongoing work or provide connectivity and completion of existing initiatives. See Table 1 in Section 2, *Project Description*, for a complete list and a brief description of each project. A summary of potential environmental impacts discussed in this analysis follows.

CEQA Environmental Checklist

- a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

The analysis in this report finds that, similar to the 2012 and 2017 RTP/SCS, most of the special-status species known or with potential to occur in the Plan Area are not expected to occur in most of the areas impacted by proposed transportation projects or be affected by implementation of the 2020 RTP/SCS. The 2012 EIR/EIS provided mitigation measures to reduce impacts to biological resources that would apply to new and modified projects in the 2020 RTP/SCS. Mitigation measures include:

- Mitigation Measure 3.10-1a: Implement Vegetation Protection Measures and Revegetate Disturbed Areas
- Mitigation Measure 3.10-1b: Conduct Delineation of Waters of the United States and Obtain Authorization for Fill and Required Permits
- Mitigation Measure 3.10-2: Minimize Tree Removal and Develop a Tree Removal Management Plan
- Mitigation Measure 3.10-3: Conduct Preconstruction Surveys and Develop and Implement Native-Fish Capture and Translocation Plan
- Mitigation Measure 3.10-4a: Conduct Follow-Up, Pre-Construction Surveys and Avoid, Minimize, or Compensate for Impacts on Special-Status Plant Species
- Mitigation Measure 3.10-4b: Conduct Pre-Construction Surveys for Nesting Special-Status Birds, and Implement a Limited Operating Period if Necessary
- Mitigation Measure 3.10-4c: Conduct Pre-Construction Surveys for Special-Status Bats, Avoid Removal of Important Roosts, and Implement a Limited Operating Period, if Necessary
- Mitigation Measure 3.10-5a: Implement Weed Management Practices during Project Construction
- Mitigation Measure 3.10-5b: Implement Aquatic Invasive Species Management Practices during Project Construction

Overall, substantial and adverse impacts to biological resources would be reduced to less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

Impacts to known and unknown cultural, historic, and tribal resources would be avoided and minimized through federal and state regulations and TRPA Code standards. In addition, the 2012 EIR/EIS provided mitigation measures to reduce impacts to cultural and tribal resources and would apply to new and modified projects in the 2020 RTP/SCS. Mitigation measures include:

- Mitigation Measure 3.15-1a: Prepare a Site-Specific Historic Resources Inventory Report
- Mitigation Measure 3.15-1b: Survey for Historic Resources
- Mitigation Measure 3.15-1c: Record Historic Buildings or Structures

- Mitigation Measure 3.15-2a: Prepare a Site-Specific Archaeological Resources Inventory Report
- Mitigation Measure 3.15-2b: Conduct Archaeological Testing and Data Recovery
- Mitigation Measure 3.15-2c: Conduct Archaeological Monitoring

Overall, substantial and adverse impacts to cultural resources would be reduced to a less than significant level with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

The 2012 and 2017 RTP/SCS analysis found that the policies, projects, and programs in the 2012 and 2017 RTP/SCS would not result in cumulatively considerable impacts for the following issue areas: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Public Safety, Hydrology and Water Quality, Land Use, Noise, Population and Housing, Public Services and Utilities, Transportation, Tribal Cultural Resources, and Wildfire. Because new projects included in the 2020 RTP/SCS would be of similar nature, scale, and location, and would include site-specific design and mitigation, no further analysis of cumulative impacts for these topic areas is required here either.

Section 8 of this report notes that GHG emissions and climate change more generally are inherently cumulative. The impact discussions in that section serve as a cumulative analysis for the 2020 RTP/SCS. Because many of the projects are GHG-reducing in nature and intent, mobile source and operational GHG emissions would be substantially reduced and, like the 2017 RTP/SCS, the 2020 RTP/SCS would not result in cumulatively considerable impacts to GHG emissions with implementation of mitigation from the 2012 RTP/SCS EIR/EIS.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

- c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

As with the 2012 RTP/SCS and the 2017 update, projects implemented under the 2020 RTP/SCS would require project-level environmental review and would be required to comply with all applicable TRPA, federal, state, county, and city regulations and any mitigation measures provided in the 2012 RTP/SCS EIR/EIS to reduce adverse effects on human beings. These include protections for human health, safety, and welfare. Therefore, implementation of the 2020 RTP/SCS would not create a substantial direct or indirect, adverse effect on human beings. Overall, substantial and adverse impacts to human beings (directly or indirectly) would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

TRPA Environmental Checklist

Section 21 – Findings of Significance

- a. *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California or Nevada history or prehistory?*

Analysis of this issue is discussed above, under CEQA item “a,” in the discussion of biological resources, which also lists the mitigation measures provided in the 2012 EIR/EIS that would apply to new and modified projects under the 2020 RTP/SCS. Overall, substantial and adverse impacts to biological resources would be reduced to a less than significant level with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

Impacts to known and unknown cultural, historic and tribal resources are discussed above, under CEQA item “a” discussion of cultural and historic resources, which also lists the mitigation measures provided in the 2012 EIR/EIS that would apply to new and modified projects under the 2020 RTP/SCS. Overall, substantial and adverse impacts to cultural and tribal resources would be reduced to less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

- b. *Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future).*

The analysis in this report finds that, similar to the 2012 and 2017 RTP/SCS, many of the projects would result in less than significant impacts. As each project would be subject to site-specific environmental analysis, any notable impacts would be subject to mitigation and projects would be required to comply with local, regional, state, and federal regulations. Because projects included in the 2020 RTP/SCS would be similar in nature, scale, and location as under the 2012 and 2017 RTP/SCS, and would incorporate site specific design and mitigation, no new significant impacts or substantially more severe impacts would occur beyond those previously analyzed in the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC.

NO

- c. *Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environmental is significant?)*

This issue is discussed in CEQA item “b,” above. Because new projects included in the 2020 RTP/SCS would be of similar nature, scale, and location, and would include site-specific design and mitigation, no further analysis of cumulative impacts for these topic areas is required here either. Similarly, the cumulative impacts of GHG emissions are discussed in Section 8 and in CEQA item “b,” above. Because many of the projects are GHG-reducing in nature and intent, mobile source and operational GHG emissions would be reduced and, like the 2017 RTP/SCS, the 2020 RTP/SCS would not result in cumulatively considerable impacts to GHG emissions.

NO

- d. *Does the project have environmental impacts which will cause substantial adverse effects on human being, either directly or indirectly?*

This issue is discussed in CEQA item “c,” above for a discussion of impacts on human beings. Overall, substantial and adverse impacts would remain less than significant with implementation of mitigation measures from the 2012 RTP/SCS EIR/EIS and would be similar to what would occur under the 2012 RTP/SCS EIR/EIS and 2017 RTP/SCS IS/IEC. No new significant impacts or substantially more severe impacts would occur.

NO WITH MITIGATION

This page intentionally left blank.

5 References

5.1 Bibliography

- America's Scenic Byways. 2020a. Mount Rose Highway, Nevada. [web page].
<https://scenicbyways.info/byway/2034.html> (accessed June 2020).
- . 2020b. Lake Tahoe Eastshore Drive. <https://scenicbyways.info/byway/2456.html> (accessed June 2020).
- American Trails. 2006. Design Guidelines. September 2006.
- Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. May 2017. https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en (accessed July 2020).
- Booth, Samuel, Planning Manager, Douglas County Community Development Department email correspondence with April Durham, PhD, Environmental Planner, Rincon Consultants, regarding master plan update, July 14, 2020.
- California Air Resources Board (CARB). 2004. 2004 Revision to the California State Implementation Plan for Carbon Monoxide. July 22, 2004.
- . 2008. Climate Change Scoping Plan. Sacramento, CA. December 2008.
- . 2011. Health Effects of Diesel Exhaust. <http://www.arb.ca.gov/research/diesel/diesel-health.htm> (accessed July 2020).
- . 2014. AB 32 Scoping Plan Website. Updated June 2014.
<http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm> (accessed July 2020).
- . 2017. California's 2017 Climate Change Scoping Plan. December 14, 2017.
https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed July 2020).
- . 2018a. Executive Order G18-102 – Tahoe Regional Planning Agency 2017 Sustainable Communities Strategy CARB Acceptance of GHG Quantification Determination. November 2018. https://ww2.arb.ca.gov/sites/default/files/2020-06/TMPO_2017_SCS_ARB_Acceptance_of_GHG_Quantification_Determination_Executive_Order.pdf (accessed July 2020).
- . 2018b. Resolution 18-12 – Proposed Update to Senate Bill 375 Greenhouse Gas Emissions Reduction Targets. March 22, 2018. https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Final_Target_Staff_Report_%202018_Resolution_18-12.pdf (accessed July 2020).
- . 2019a. "EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicle Rule Part One." November 20, 2019.
https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf (accessed June 2020).
- . 2019b. "Maps of State and Federal Area Designations." August 2019.
<https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations> (accessed July 2020).

- 2019c. "California Greenhouse Gas Emission Inventory – 2019 Edition. Last modified: August 12, 2019. <https://ww3.arb.ca.gov/cc/inventory/data/data.htm> (accessed July 2020).
- 2019d. EMFAC2017 Web Database. <https://www.arb.ca.gov/emfac/2017/> (accessed July 2020).
- 2020a. EMFAC Off-Model Adjustment Factors for Carbon Dioxide (CO₂) Emissions to Account for the SAFE Vehicles Rule Part One and the Final SAFE Rule. June 26, 2020. https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf?utm_medium=email&utm_source=govdelivery (accessed July 2020).
- 2020b. "SB 375 Regional Plan Climate Targets." <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets> (accessed July 2020).
- 2020c. Personal communication from Lezlie Kimura Manager, Sustainable Transportation and Communities Division, California Air Resources Board via phone regarding the 2005 baseline year emission calculation for the 2020 RTP/SCS SB 375 analysis with Tahoe Regional Planning Agency. July 21, 2020.
- California Department of Fish and Wildlife (CDFW). 2020a. California Natural Diversity Database, Rarefind V. Available at: <https://wildlife.ca.gov/data/cnddb/maps-and-data> (accessed June 2020).
- 2020b. Biogeographic Information and Observation System. Available at: www.wildlife.ca.gov/data/BIOS (accessed June 2020).
- California Department of Forestry and Fire Protection (CAL FIRE). 2007. Archived Incidents-Angora Fire. Available: http://bof.fire.ca.gov/incidents/incidents_details_info?incident_id=184 (accessed August 2020).
- 2020. Fire Hazard Severity Zone Viewer [online map]. <https://egis.fire.ca.gov/FHSZ/> (accessed August 2020).
- CalRecycle. 2020.
- California Department of Toxic Substances (DTSC). 2020. EnviroStor database. [online]. <https://www.envirostor.dtsc.ca.gov/public/> (accessed August 2020).
- California Department of Transportation (Caltrans). 2016. Guide to Visual and Aesthetics Review. Sacramento, CA.
- 2020. Scenic Highways. [tabular dataset]. Last updated August 2020.
- California Geologic Survey. 2005. Earthquake Shaking Potential Map of Eastern California and Western Nevada, CGS Map Sheet 56.
- California Native Plant Society (CNPS). 2020. Inventory of Rare and Endangered Plants. V.7-08c-Interim 8-22-02. Available at: www.rareplants.cnps.org (accessed June 2020).
- Carson City, City of. 2006a. Carson City Master Plan. Carson City, NV. April 6, 2006. Prepared by Kimley Horn and Associates. Reno, NV.
- 2006b. City of Carson City Master Plan Guiding Principle #3, Stewardship of the Natural Environment.

DePolo, Craig M., John G. Anderson, Diane M. dePolo, and Jonathan G. Price. 1997. Earthquake Occurrence in the Reno-Carson City Urban Corridor. *Seismological Research Letters* 68: 401-412. May/June

Douglas County. 2011. Douglas County Design Criteria and Improvement Standards

----- . 2012. Douglas County General Plan EIR, Chapter 3 Land Use. Waterville, NV. (Douglas County 2011).

----- . 2012b. Douglas County Master Plan Land Use Element.

El Dorado, County of. 1989. Design and Improvement Standards Manual. Placerville, CA. May 27, 1986.

----- . 2015. Site Planning and Project Design Standards. Placerville, CA.

El Dorado Air Quality Management District. 2002. Determining Significance of Air Quality Impact Under the California Environmental Quality Act, First Edition.
https://www.edcgov.us/Government/AirQualityManagement/Pages/guide_to_air_quality_assessment.aspx.

Federal Highway Administration. 2013. Handbook for Estimating Transportation Greenhouse Gases for Integration into the Planning Process. July 2, 2013.
https://www.fhwa.dot.gov/environment/sustainability/energy/publications/ghg_handbook/ghghandbook.pdf (accessed August 2020).

Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual. September 2018. Report No. 0123.
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

Garza, Vicente J., P. Graney, and D. Sperling. 1997 (December). Transportation Project-Level Carbon Monoxide Protocol. Revisions prepared by D. Niemeier, D. Eisinger, T. Kear, D. Chang, and Y. Meng. University of California, Davis, CA. Prepared for Environmental Program, California Department of Transportation.

Ichinose, G.A., J.G. Anderson, K. Satake, R.A. Schweickert, and M.M. Lahren. 2000. The potential hazard from tsunami and seiche waves generated by large earthquakes within Lake Tahoe, California-Nevada. *Geophysical Research Letters* 27(8): 1203-1206

Intergovernmental Panel on Climate Change (IPCC). 2014. Climate Change 2014: Mitigation of Climate Change. Summary for Policymakers - Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

----- . 2015. Climate Change 2014 Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland.

----- . 2018. Summary for Policymakers. In: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.
<https://www.ipcc.ch/sr15/> (accessed July 2020).

- Lake Tahoe Sustainable Communities Program. 2013. Sustainability Action Plan.
https://www.trpa.org/wp-content/uploads/Final-Sustainability-Action-Plan_FINAL.pdf.
 Accessed June 10, 2020.
- Nevada Department of Transportation (NDOT). 2012. Landscape and Aesthetics Corridor Plan. Reno, NV.
- , 2016. NDOT 2017 Complete Streets Policy. Prepared by Kimley Horn and Associates. Reno, NV. June 2016.
- , 2020. Nevada's Scenic Byways. [web page]. <https://www.nevadadot.com/travel-info/travel-nevada/scenic-byways> (accessed June 2020).
- National Oceanic and Atmospheric Administration. 2020. "Global Climate Report for Annual 2019." State of the Climate. January 2020. <https://www.ncdc.noaa.gov/sotc/global/201813> (accessed July 2020).
- Nevada Division of Environmental Protection. 2019. Nevada Statewide Greenhouse Gas Emissions Inventory and Projections, 1990-2039. https://ndep.nv.gov/uploads/air-pollutants-docs/ghg_report_2019.pdf. Accessed June 8, 2020.
- Nevada State Parks. 2011. Sand Harbor, Lake Tahoe Nevada State Park. [information pamphlet]. Incline Village, NV. September 2011.
- Placer County. 2010. Kings Beach Commercial Core Improvement Project Final EA/EIR/EIS. Auburn, CA.
- , 2013. Placer County General Plan. Auburn, CA. May 21, 2013.
- Placer County Air Pollution Control District (APCD). 2016a. Placer County Air Pollution Control District Policy Review of Land Use Projects under CEQA. October 13, 2016.
<https://www.placer.ca.gov/DocumentCenter/View/2060/Review-of-Land-Use-Projects-Under-CEQA-Policy-PDF> (accessed July 2020).
- , 2016b.
- Placer County/Tahoe Regional Planning Agency. 2016. Placer County Tahoe Basin Area Plan and Tahoe City Lodge Draft EIR/EIS. <http://www.trpa.org/wp-content/uploads/04-Approach-to-Env-Analysis.pdf>. Accessed: June 8, 2020.
- Segale, H. and J. Cobourn. 2005. UNR Scientists Study Earthquake Faults at Tahoe. University of Nevada Cooperative Extension Newsletter. July 15.
- South Lake Tahoe, City of. 2007. Lake Tahoe Airport Comprehensive Land Use Plan. Prepared by Janis G. Brand &
- , Richard D. French. July 1990, updates through May 2007. Available at:
<http://www.trpa.org/default.aspx?tabid=174> (accessed August 2020).
- , 2011. Natural and Scenic Resources Element. South Lake Tahoe General Plan. South Lake Tahoe, CA. May 17, 2011.
- , 2016. City of South Lake Tahoe Design Guidelines.
- , 2020. City of South Lake Tahoe Draft Climate Action Plan. August 2020.
<https://www.cityofslt.us/DocumentCenter/View/14460/SLT-CAP-DRAFT>

- State Water Resources Control Board (SWRCB). GeoTracker database [online].
<https://geotracker.waterboards.ca.gov/> (accessed August 2020).
- Tahoe Regional Planning Agency (TRPA). 1989. Regional Plan for the Lake Tahoe Basin Design Review Guidelines. Carson City, NV. September 1989.
- . 2011. Roadway and Shoreline Units: Travel Route Ratings for Roadway Travel Units. [infographic]. TRPA Scenic Threshold Monitoring Data. Carson City, NV. 2011.
- . 2011. Appendix A – Socioeconomic Setting of the Lake Tahoe Region. 2011 Threshold Evaluation. Carson City, NV. 2011.
- . 2012. Regional Plan Update, Draft Environmental Impact Report/Environmental Impact Statement. Stateline, NV. April 25, 2012.
- . 2015a. Scenic Corridors, Recreation Areas, & Bikeways. [tabular dataset]. Carson City, NV. August 2015.
- . 2015b. Travel Route Ratings for Roadway Travel Units: 2015 Evaluation. [online report with infographics]. <https://www.laketahoeinfo.org/> (accessed June 2020).
- . 2016a. 2015 Threshold Evaluation. September 28, 2016. <http://www.trpa.org/wp-content/uploads/FINAL-2015-TVAL-All-Redlines-1.pdf> (accessed June 2020).
- . 2016b. Active Transportation Plan. <http://www.trpa.org/ActiveTransportationPlan/#active-transportation> (accessed August 2020).
- . 2018. Visitor Travel Survey. Carson City, NV.
- . 2019a. Public Participation Plan. August 2019. http://www.trpa.org/wp-content/uploads/Public-Participation-Plan_Revised_FINAL_2019.pdf
- . 2019b. Threshold Standards and Regional Plan. Carson City, NV.
- . 2019c. Lake Tahoe Restoration Act Priority List: Environmental Improvement Program Federal Fiscal Year 2020. Carson City, NV. April 2019.
- . 2019d. All Maps. <http://www.trpa.org/wp-content/uploads/maps/All%20Maps.pdf> (accessed August 2020).
- . 2020a. “Thresholds: The Science Behind the Regional Plan.” [web page]. <http://www.trpa.org/about-trpa/how-we-operate/thresholds/> (accessed June 2020).
- . 2020b. “Final Land Use.” TRPA Arc GIS. [online dataset]. <https://data-trpa.opendata.arcgis.com/datasets/final-land-use/data?page=19> (accessed July 2020).
- . 2020c. Personal communication from Reid Haefer, Modeling Program Coordinator, Tahoe Regional Planning Agency via email regarding VMT forecast data for the 2020 RTP/SCS with Kari Zajac, MESM, Project Manager, Rincon Consultants, Inc. July 23, 2020.
- . 2020d. Guidance for Assessment of Vehicle Miles Traveled (VMT) Impacts of Projects in the Tahoe Basin. April 14, 2020.
- . 2020e. 2020 Projects and Revenues.

- . 2020f. Personal communication from Reid Haefer, Modeling Program Coordinator, Tahoe Regional Planning Agency via email regarding adjusted 2005 VMT forecast for SB 275 analysis for the 2020 RTP/SCS with Kari Zajac, MESM, Project Manager, Rincon Consultants, Inc. July 31, 2020.
- . 2020g. 2020 RTP Regional Forecast.
- U.S. Census. 2020. "Douglas County, Nevada; South Lake Tahoe City, California." *Quick Facts*. [webpage].
<https://www.census.gov/quickfacts/fact/table/douglascountynevada,southlaketahoecitycalifornia/PST045219> (accessed August 2020).
- U.S. Census, American Communities Survey. 2020. "Lake Tahoe CCD, California Demographics Data." Town Charts. [infographic dataset].
<http://www.towncharts.com/California/Demographics/Lake-Tahoe-CCD-CA-Demographics-data.html> (accessed August 2020).
- U.S. Environmental Protection Agency (USEPA). 2018. Personal communication from Elizabeth J. Adams, Acting Director, Air Division, United States Environmental Protection Agency via letter regarding transportation conformity requirements for the CO NAAQS in California with Muhaned Aljabiry, Chief, Office of Federal Transportation Management Program, California Department of Transportation. March 21, 2018.
- . 2020. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018. U. S. EPA #430-R-20-002. April 2020. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2018> (accessed July 2020).
- United States Department of Agriculture (USDA). 2019. Nevada Agricultural Statistics Annual Bulletin 2018 Crop Year.
https://www.nass.usda.gov/Statistics_by_State/Nevada/Publications/Annual_Statistical_Bulletin/2010s/NVANNBUL2018cropyear.pdf
- U.S. Department of Agriculture, Forest Service Division (USFS). 2013. Visual Standards Guide. Washington, DC.
- United States Fish and Wildlife Service. 2016. Federal Register. 50 CFR Part 17. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Sierra Nevada Yellow-Legged Frog; the Northern DPS of the Mountain Yellow-Legged Frog; and the Yosemite Toad; Final Rule.
- . 2020a. Information for Planning and Consultation online project planning tool. Available at: <https://ecos.fws.gov/ipac/> (accessed June 2020).
- . 2020b. Critical Habitat Portal. Last Updated: Apr 2, 2020 Available at: <https://ecos.fws.gov/ecp/report/table/critical-habitat.html> (accessed June 2020).
- Washoe County. 2010. Master Plan Conservation Element. Department of Community Development. Reno, NV. July 2010.
- World Meteorological Organization. 2013. A summary of current and climate change findings and figures: a WMO information note. March 2013.
https://library.wmo.int/opac/index.php?lvl=notice_display&id=15892#.Wt9-Z8gvzIU (accessed July 2020).

----- . 2020. "Greenhouse Gases." <https://public.wmo.int/en/our-mandate/focus-areas/environment/greenhouse%20gases> (accessed July 2020).

5.2 List of Preparers

Rincon Consultants, Inc. prepared this IS/IEC under contract to the Tahoe Regional Planning Agency. Persons involved in data gathering analysis, project management, and quality control are listed below.

RINCON CONSULTANTS, INC.

Matt Maddox, MEMS AICP, Principal
Kari Zajac, MESM, Project Manager
April Durham, PhD, Associate Planner
Andrew Hatt, Sustainability Planner
Aileen Mahoney, Associate Planner
Annaliese Miller, Associate Planner
Amanda Ross, Associate Planner
Beth Wilson, Associate Planner
Audrey Brown, GIS Analyst

This page intentionally left blank.

Appendix A

2020 RTP/SCS vs. 2017 RTP/SCS Goals and Policies Crosswalk

Appendix B

2012 and 2017 RTP/SCS Mitigation Measures

Appendix C

2020 RTP/SCS Project List

Appendix D

2020 Regional Transportation Plan Regional Forecast Report

Appendix E

Air Quality Study

Appendix F

Greenhouse Gas Emissions Study

Appendix G

Vehicle Miles Traveled Projections and Traffic Operations Analysis

Appendix H

Trip Reduction Impact Analysis Documentation Memo