

3.5 PUBLIC SERVICES AND UTILITIES

This section describes the existing public services and utilities in and around the study area, presents analysis of potential impacts resulting from the project alternatives, and identifies mitigation measures for those impacts determined to be significant. In particular, it addresses impacts on water supply, wastewater treatment and disposal, electricity, natural gas, solid waste, law enforcement, fire and emergency services, and school facilities. Federal, state, and local regulations related to public services and utilities are summarized. The primary issues raised during scoping included the following:

- ▲ Commenter describes Nevada regulations for water rights, new water supplies, and monitoring wells. The commenter also states that any water used for construction, dust control, or maintenance should be provided by an established utility or under permit or waiver issued by the State Engineer's Office.
- ▲ Commenters express concern regarding potential utility conflicts between the project and South Tahoe Public Utility District (STPUD) sewer and water distribution systems, fire hydrants, and storm drain systems. Commenter states that if the finish grade of the proposed improvements are similar to, or higher than, the existing grade, then the waterlines would generally not require relocation.
- ▲ Commenter states that a major cluster of system valves is located at the proposed US 50/Pioneer Trail intersection and that relocation of these main lines would interrupt STPUD's capacity to provide fire flows to a portion of their service area. Commenter suggests relocating the proposed intersection or relocating the valve assemblies outside of the proposed intersection.
- ▲ Commenter asserts that water meter boxes at buildings proposed for acquisition would need to be abandoned and other meter boxes would likely need to be relocated.
- ▲ Commenter asserts that the storm drain elements of the project would likely require the relocation of certain sections of water lines, typically by lowering the water line in the immediate vicinity of the storm drain improvement. Commenter suggests that the project engineering design and grading plans and STPUD water line profiles should be reviewed for conflict determination and that storm drain improvements for the project be designed around the existing gravity sewer network.
- ▲ Commenter asserts that the environmental document should assess potential impacts on snow removal services, including requirements for an increase in snow removal needs and project design elements that would require special equipment, techniques, or operations for snow removal.

Most of these issues are addressed in this section; however, stormwater issues and snow removal are addressed in Section 3.10, "Water Quality and Stormwater Runoff."

The primary sources of information presented in this section were TRPA, El Dorado County, and Douglas County planning documents, goals, and policies; through consultation with representatives of public service and utility providers; and the following documents:

- ▲ *Housing Analysis – Alternative B, C and D* (Massey 2016);
- ▲ *Community Impact Assessment* (FHWA et al. 2014);
- ▲ *Relocation Study for the US 50/South Shore Community Revitalization Project* (TTD 2012); and
- ▲ *Economic Analysis of the US 50/South Shore Community Revitalization Project* (TTD 2013).

Cumulative public service and utility impacts are addressed in Section 3.19, "Cumulative Impacts." The potential for impacts on recreational facilities is addressed in Section 3.3, "Parks and Recreational Facilities," and potential impacts on groundwater and stormwater drainage are addressed in Section 3.10, "Water Quality and Stormwater Runoff." Impacts associated with construction to upgrade existing

infrastructure or install new infrastructure on the project site are discussed in Section 3.11, “Geology, Soils, Land Capability, and Coverage.” Access for emergency services during construction and operation of the project is addressed in Section 3.6, “Traffic and Transportation.”

3.5.1 Regulatory Setting

The following provides an overview of laws and regulations related to public services and utilities that are applicable to the US 50/South Shore Community Revitalization Project.

FEDERAL

No federal regulations related to public services and utilities are applicable to the alternatives evaluated in this EIR/EIS/EIS.

TAHOE REGIONAL PLANNING AGENCY

Lake Tahoe Regional Plan

The Tahoe Regional Planning Agency (TRPA) Lake Tahoe Regional Plan (Regional Plan) describes the needs and goals of the Lake Tahoe Region, and provides statements of policy to guide decision-making as it affects the Region’s resources and remaining capacities. The intent of the Regional Plan is to help guide decision-making as it affects the growth and development of the Lake Tahoe Region. The Regional Plan affects the planning activities of numerous governmental jurisdictions and utility service districts (TRPA 2012b).

Goals and Policies

The Public Services and Facilities Element of the TRPA Regional Plan includes goals and policies related to the provision of adequate public services and utilities to meet the needs of existing and new development, and protection of surface and groundwater from solid and liquid municipal waste. Goals and policies address adequate water supplies and conservation (Policies PS-1.3, PS-2.1, PS-2.3; TRPA 2012b:6-2 – 6-3), the prohibition of municipal or industrial wastewater entering the surface water and groundwater of the Tahoe Region (Policy PS-3.1; TRPA 2012b:6-3), and protection of the public health, safety, and general welfare of the region, educational and public safety services (Policy PS-4.1; TRPA 2012b:6-4). The full text of these goals and policies, along with a discussion of the project’s consistency with the goals and policies, is included in Appendix E, “Goals and Policies Consistency Analysis.”

Code of Ordinances

Chapter 33, Grading and Construction, of the TRPA Code applies to grading, excavation, filling, clearing of vegetation, and disturbance of the soil, and protection of vegetation during construction. In accordance with Code Section 33.3.4, the methods of disposal of solid or liquid materials, including soil, silt, clay, sand, or other organic or earthen materials, shall be reviewed and approved by TRPA. These methods of disposal shall include, but are not limited to:

- ▲ temporary stockpiling of all or some of the topsoil on the site for use on areas to be revegetated;
- ▲ disposal of the material at a location approved by TRPA; and
- ▲ export of the materials outside the Region.

Provisions of Chapter 33 regarding disposal of construction materials would apply to those portions of the project located within the area under the land use authority of TRPA.

Although TRPA does not specifically regulate the provision of electrical and natural gas services in the Lake Tahoe Basin, Code Section 27.5 directs that projects proposing 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.

Arrangements for the design and installation of any needed additional natural gas facilities must be made in accordance with the rules and regulations set forth by the Public Utilities Commission of Nevada. Natural gas service would be provided to the project site by Southwest Gas Corporation (SGC). Once the project is approved for construction, SGC would require pre-construction review of site trenching and roadway improvement plans to determine the natural gas meter locations and specifications.

Water Service

Section 32.4 of the TRPA Code of Ordinances contains a basic water service requirement for projects proposing a new structure, or reconstruction or expansion of an existing structure, designed or intended for human occupancy, specifically directing that such projects shall have adequate water rights and water supply systems.

According to Code Section 32.4.2, adequate fire flow for a project in the Tourist Core Area Plan requires 750-1,000 gallons per minute (gpm) over a 2-hour period at 20 pounds per square inch (psi) residual pressure.

Wastewater Service

Section 32.5 of the TRPA Code specifically directs that projects that would generate wastewater shall be served by facilities for the treatment and export of wastewater from the Lake Tahoe Basin. To be considered served, the project must have a service connection to transport wastewater from the parcel to a treatment plant.

Electrical Service

Section 32.6 of the TRPA Code requires that adequate electrical supply shall be served to structures intended for human occupancy.

Environmental Threshold Carrying Capacities

TRPA has not established any environmental threshold standards related to public services and utilities.

Tourist Core Area Plan

No goals and policies from the Tourist Core Area Plan are applicable to public service or utility aspects of the alternatives evaluated in this EIR/EIS/EIS.

South Shore Area Plan

No goals and policies in the South Shore Area Plan are applicable to public services or utility aspects of the alternatives evaluated in this EIR/EIS/EIS.

STATE

California

Porter-Cologne Water Quality Control Act of 1970

The Porter-Cologne Water Quality Control Act of 1970 prohibits the use of reclaimed wastewater within the Lake Tahoe Basin. Wastewater is transported out of the Basin from the STPUD Wastewater Treatment Plant (WWTP) to Alpine County, and no reclaimed water is imported back into the Basin.

Public Resources Code Sections 4125 and 4102 – State Responsibility Areas

The California Department of Forestry and Fire Protection implements statewide laws aimed at reducing wildfire hazards in wildland-urban interface areas. These laws, based on fire hazard assessment and zoning, apply to State Responsibility Areas, which are defined as areas in which the state has primary financial

responsibility for preventing and suppressing fires. The determination of state responsibility is made by the State Board of Forestry in accordance with Sections 4125 and 4102 of the California Public Resources Code. Fire protection outside State Responsibility Areas is the responsibility of federal or local jurisdictions.

Public Resources Code 4216 – Excavations

Public Resources Code Section 4216 regulates excavations potentially affecting underground utilities, including notification requirements by excavators, operator response requirements, and excavation practices. In accordance with Section 4216.1, every operator of a subsurface installation—such as water lines, gas lines, and sewer lines—must become a member of, participate in, and share in the costs of a regional notification center. Underground Service Alert Northern California provides services to the study area. Any person planning to conduct an excavation must contact the regional notification center prior to commencing excavation (Section 4216.2). The operator of the utility must respond by locating and field marking the utility that may be affected by excavation (Section 4216.3). Section 4216.4 requires that the excavator determine the location of subsurface installations before using power-driven equipment for excavating or boring, and requires the excavator to notify the operator or emergency services, as appropriate, in the event that damage is discovered or caused by the excavator. Compliance with Section 4216 is required before commencement of excavation.

California Code of Regulations Section 1541 – Construction Safety Related to Excavations

California Code of Regulations Title 8, Chapter 4, Subchapter 4, Article 6, Section 1541 addresses construction safety orders related to excavations and requires safe conditions for workers involved with excavations or working near excavations.

California Building Standards Code (Title 24)

Energy consumption of new buildings in California is regulated by State Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The 2016 Building Energy Efficiency Standards have improved efficiency requirements from previous codes and the updated standards are expected to result in a statewide energy consumption reduction.

Effective January 1, 2011, CALGreen became California's first green building standards code. It is formally known as the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations. CALGreen establishes mandatory minimum green building standards and includes more stringent optional provisions known as Tier 1 and Tier 2. Cities and counties, at their discretion, may adopt Tier 1 or Tier 2 as mandatory, or adopt and enforce other standards that are more stringent than the CALGreen Code. El Dorado County has adopted several modifications to both the residential and non-residential CALGreen mandatory sections.

Where a local jurisdiction has not adopted a more stringent construction and demolition (C&D) ordinance, construction activities are required to implement Section 5.408 of the CALGreen Code. Under Section 5.408, construction activities are required to recycle and/or salvage for reuse a minimum of 65 percent of their nonhazardous C&D waste as of January 1, 2017. Applicable projects are required to prepare and implement a Construction Waste Management Plan, which is submitted to the local jurisdiction prior to issuance of building permits. The City of South Lake Tahoe does not currently have an adopted C&D waste management ordinance.

Nevada

No Nevada state regulations related to public services and utilities are applicable to the alternatives evaluated in this EIR/EIS/EIS.

LOCAL

City of South Lake Tahoe General Plan

The City of South Lake Tahoe General Plan (City of South Lake Tahoe 2011) includes goals and policies to ensure the timely maintenance, expansion, and upgrade of public facilities and services for the city (Policy PQP-1.7). In addition, new construction must meet minimum fire flow requirements, as set forth in the California Building and fire codes (Policy HS-2.5). The full text of these goals and policies, along with a discussion of the project's consistency with the goals and policies, is included in Appendix E, "Goals and Policies Consistency Analysis."

Douglas County Master Plan

No Douglas County Master Plan goals or policies associated public services and utilities are applicable to the alternatives evaluated in this EIR/EIS/EIS.

3.5.2 Affected Environment

WATER

STPUD supplies water to the California portion of the study area. Water supplies associated with STPUD are provided by municipal wells to pump groundwater to the district's service area. In 2015, 5,241 acre-feet of water was delivered to customers (STPUD 2016b:7).

Water is supplied to casino properties in Stateline by the Edgewood Water Company (EWC). Water supplies for EWC are provided from Lake Tahoe and are treated to meet drinking water quality standards. The average daily flow for the EWC, in 2015, was 601,715 gallons per day (gpd; 1.85 acre feet), and the peak daily flow was 1,612,400 gpd (5.0 acre feet; Tahoe Water Suppliers Association 2015:10). Based on the average daily flow for EWC, the estimated annual flow in 2015 was 219 million gallons (674 acre feet). The Lakeside Park Association serves the area along Stateline Avenue and the Lakeside Park area. In 2015, the average daily flow for Lakeside Park Association was 100,000 gpd (0.3 acre-feet) and the peak daily flow was 424,000 gallons (1.3 acre feet). Based on the average daily flow for Lakeside Park Association, the average annual flow in 2015 was 36.5 million gallons (112 acre feet).

Existing water supply lines for STPUD in the study area are shown in Exhibit 3.5-1. Water supply lines are located in project site roads, including Pioneer Trail, Moss Road, Montreal Road, Echo Road, Fern Road, US 50, and Lake Parkway.

Because Sites 1, 2, and 3 proposed for mixed-use development are located in the STPUD service area, the following discussion related to water supply is limited to the STPUD service area. Water supply is provided by 14 active supply wells. STPUD's Domestic Water Supply Permit lists a total of 23 wells within its service area. In addition to the supply wells, STPUD maintains several standby wells, several sampling and monitoring wells, and several inactive wells. The storage and distribution system is comprised of 16 booster pump stations, 23 storage tanks, 26 pressure-reducing valves, and 320 miles of potable water pipe (STPUD 2016b:4).

Existing water supply infrastructure in the study area is shown in Exhibit 3.5-1. The Stateline water storage tanks, which supply water to the Rocky Point neighborhood west of Heavenly Village Center, are located off of Lake Parkway near the California-Nevada state line. Water supply infrastructure within the study area includes, but is not limited to, water supply lines, meter boxes, and hydrants.

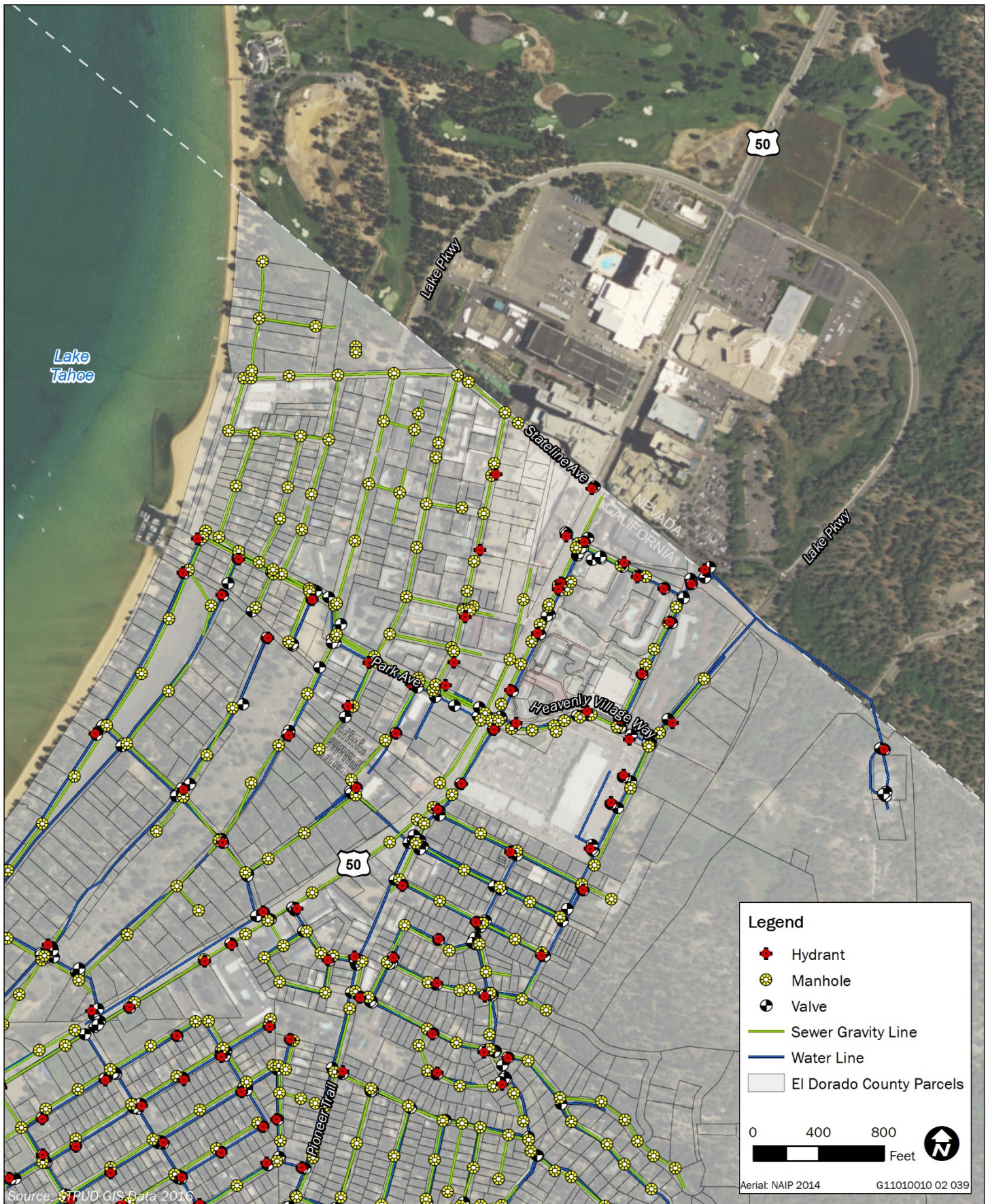


Exhibit 3.5-1

Existing STPUD Water Supply and Wastewater Conveyance Infrastructure

STPUD water supply is provided by groundwater. Surface water supply agreements and rights have been granted to STPUD from Cold Creek (2,718 acre feet per year [afy]) and the Upper Truckee River and tributaries (4,424 afy); however, these supplies are not currently used because of water quality and supply reliability concerns. Water pumped from groundwater sources has historically been below the basin's estimated safe yield of 9,528 afy and has been declining since 2007 (STPUD 2016b:12 - 13). Actual water demand in 2015 was 5,241 afy (STPUD 2016b:7).

Projected population growth rates in the STPUD service area are based on the City of South Lake Tahoe's Urban Water Management Plan (UWMP). The UWMP also recognizes that the TRPA Environmental Thresholds provide a growth control mechanism for the region, which in turn impacts projected water demands. Because the groundwater basin is not adjudicated, STPUD is not assigned an available supply. As described in the 2016 UWMP, STPUD will pump sufficient supply to meet the demands during each of the single and multiple dry year scenarios, without requiring a reduction in demand or supplemental supplies. Demand for the single dry year scenario is increased 10 percent as a conservative estimate of increased outdoor water usage during the first dry summer (STPUD 2016b:4, 6, 20). STPUD's projected water supply and demand is shown in Table 3.5-1.

Table 3.5-1 STPUD Water Supply and Demand (afy)

	2020	2025	2030	2035
Normal Year				
Supply Total	6,019	6,137	6,255	6,373
Total Water Demand	6,019	6,137	6,255	6,373
Single Dry Year				
Supply Total	6,621	6,751	6,881	7,010
Total Water Demand	6,621	6,751	6,881	7,010
Multiple Dry Years				
Supply Total	6,019	6,137	6,255	6,373
Total Water Demand	6,019	6,137	6,255	6,373
Source: STPUD 2016b:21				

WASTEWATER

Under the Porter-Cologne Water Quality Control Act, all sewage within the Lake Tahoe Basin must be collected, treated, and exported outside of the Basin. STPUD provides wastewater collection and treatment for the California portion of the study area. Wastewater services in the Nevada portion of the study area are provided by the Douglas County Sewer Improvement District (DCSID). The DCSID Sewer Ordinance regulates the installation and maintenance of private and community wastewater collection, treatment, and export.

Currently, the STPUD WWTP treats 4.0 million gallons per day (mgd) and has a total capacity of 7.7 mgd (STPUD 2016a). The wastewater treatment plan has 3.7 mgd of available wastewater treatment capacity. Existing wastewater conveyance infrastructure for STPUD in the study area is shown in Exhibit 3.5-1. There are a number of sewer gravity lines in project site roads, including Pioneer Trail, Moss Road, Montreal Road, Echo Road, Fern Road, US 50, and Lake Parkway. Several sewer maintenance holes are located within roadways throughout the Rocky Point neighborhood west of Heavenly Village Center.

ELECTRICITY AND NATURAL GAS

Electrical service to the study area is provided by NV Energy in Nevada and Liberty Utilities in California. Natural gas service is provided to the study area by Southwest Gas Corporation.

SOLID WASTE

South Tahoe Refuse (STR) provide waste removal services for the South Lake Tahoe area and Douglas County. STR collects more than 100,000 tons of waste each year. This waste is collected and sorted for recycling at the Materials Recovery Facility (MRF) located at STR's transfer station in South Lake Tahoe, California. The MRF initiates or improves separation of aluminum cans, glass, plastics, cardboard, different grades of paper, tin, metals, appliances, milled wood, green waste, stumps, construction debris, and tires.

Waste collected by STR is delivered to Lockwood Regional Landfill in Storey County, Nevada. Lockwood Regional Landfill presently has a capacity of 302.5 million cubic yards over an area of 856.6 acres. Based on an April 2010 aerial survey, the landfill contained a waste volume of approximately 32.8 million cubic yards (Nevada Division of Environmental Protection [NDEP] 2016). The landfill receives approximately 5,000 tons of waste per day (NDEP 2016).

FIRE PROTECTION

Fire protection for the study area is provided by the City of South Lake Tahoe Fire Department (SLTFD) and Tahoe-Douglas Fire Protection District (TDFPD). Each district operates four fire stations. The nearest fire stations to the study area are located at 1252 Ski Run Boulevard in South Lake Tahoe, California, and 702 Kingsbury Grade in Stateline, Nevada.

LAW ENFORCEMENT

Law enforcement in South Lake Tahoe is provided by the South Lake Tahoe Police Department. Areas outside of the city limits, within the study area, are served by the Douglas County Sheriff Department. The California and Nevada Highway Patrols have jurisdiction over highways (e.g., US 50) within their respective states.

The Douglas County Sheriff's Department operates the Tahoe Station, located approximately ½ mile east of the study area at 175 US 50 in Stateline, Nevada. A total of 122 people are employed by the Douglas County Sheriff's Department, which includes four divisions: Administration, Investigations, Jail, and Patrol.

The South Lake Tahoe Police Department is located at 1352 Johnson Boulevard in South Lake Tahoe, California, approximately 2 miles southwest of the study area. There are currently 37 sworn officers and 11 supporting civilian positions (City of South Lake Tahoe 2016).

PUBLIC SCHOOL FACILITIES

Public school facilities in the vicinity of the study area that would serve the project are associated with Lake Tahoe Unified School District (LTUSD). The nearest LTUSD schools to the project are South Tahoe High, South Tahoe Middle, and Bijou Community Schools. Schools and enrollment statistics from 2010 through 2015 are provided in Table 3.5-2, as well as the maximum enrollment levels reported for each school since 1996.

Table 3.5-2 Public School Facility Enrollment

School	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Maximum Enrollment 1996-2015 ¹
Bijou Community	492	521	538	578	582	611
Lake Tahoe Environmental Science Magnet	369	378	374	384	397	397
Mount Tallac High	82	96	93	87	87	109
Sierra House Elementary	450	471	491	503	502	641
South Tahoe High	1,139	1,054	1,001	1,040	984	1,630
South Tahoe Middle	859	820	817	787	817	1,393
Tahoe Valley Elementary	446	458	434	433	474	729
Transitional Learning Center	41	61	45	43	38	173
Total	3,878	3,859	3,793	3,855	3,881	5,683

¹ Maximum number of students enrolled during a school year between 1996 and 2015. Total does not reflect an actual school year, but is intended to show a combined maximum enrollment rate that could occur by considering the greatest enrollment level recorded since 1996.

Source: California Department of Education 2016

3.5.3 Environmental Consequences

METHODS AND ASSUMPTIONS

The information presented in this section was obtained from TRPA, El Dorado County, and Douglas County planning documents, goals, and policies; and through consultation with representatives of public service and utility providers. Any potential effects of the build alternatives' transportation improvements on public services and utilities would occur only as a result of construction; operational conditions of the roadways would be the same as existing conditions. Alternatives B, C, and D mixed-use development, including replacement housing, could result in impacts from a net increase in population and new residential and commercial uses. These potential effects are discussed further below. The environmental effects of the potential revitalization benefits associated with the project, which could include increased visitation and associated additional demand for public services and utilities, would be considered as part of full buildout of the Tourist Core Area Plan and were previously assessed (City of South Lake Tahoe 2013:6 – 7, 17 – 18).

The project alternatives' projections for utility requirements are based on the following assumptions:

- ▲ Water supply projections were modeled using typical water demand factors for single-family residential, multi-family residential, and tourist accommodation unit (TAU) development (Coolidge, pers. comm., 2016a).
- ▲ Projections for wastewater treatment flows were modeled using typical wastewater flow factors for single-family residential and commercial uses (Coolidge and Goligoski, pers. comm., 2016). The overall model is based on buildout identified by the general plans in effect at the time of the model development, which consisted of the City of South Lake Tahoe 1999 General Plan, the 2008 General Plan Housing Element Public Review Draft, and the El Dorado County 2004 General Plan (Coolidge, pers. comm., 2016c). The buildout plan included flows from every parcel that can contribute wastewater. With that said, the Stateline area is unique due to the identified redevelopment in the area, which causes projects to be evaluated at a project level, as has been done for Alternative D. Estimates for existing wastewater flows are based on typical wastewater flows for individual sewer units (Coolidge, pers.

comm., 2016a, 2016b). The ability of the STPUD wastewater collection system to convey flows from the mixed-use development was modeled for Alternative D with mixed-use development because this alternative could result in the greatest increase in development over existing conditions and did not account for a reduction in wastewater flows resulting from displaced hotel/motel uses; therefore, the analysis of the mixed-use development wastewater impacts on wastewater collection is conservative because it considers a worst-case scenario. Final design of the alternatives with mixed-use development could result in a smaller number of housing units and amount of commercial floor area than described in Chapter 2, “Proposed Project and Project Alternatives.”

- ▲ Solid waste disposal estimates were determined through quantity estimates assumed under the Regional Plan Update EIS. This assumes that new jobs would be retail-based and would generate 1.9 tons of waste per year per employee, and that each new resident would generate 1.39 tons of waste per year (TRPA 2012a:3.13-10). Based on estimates by the California Department of Resources Recycling and Recovery (CalRecycle), 1 cubic yard of waste, compacted in a landfill, weighs 0.75 ton (CalRecycle 2016).
- ▲ The amount of demolition waste resulting in haul trips was estimated based on assumptions used in the air quality modeling conducted using California Emissions Estimator Model (CalEEMod), such as the amount of square footage of buildings displaced by the project (modeled by Ascent Environmental in 2016).

This evaluation provides qualitative information and analysis, to the extent feasible. Many of the impacts discussed below address effects that would be related to construction and operation of mixed-use development, including replacement housing, which are described at a program level as detailed information is not available at this time. As applications for the mixed-use development sites are submitted to the City, additional project-level evaluation would be required, including the necessary documentation under CEQA, NEPA, and TRPA regulations. Impacts on utilities and service systems would be limited to portions of the study area within California; because no changes to population levels would result in Nevada, there would be no impacts on public services and utilities for the Nevada portion of the study area.

SIGNIFICANCE CRITERIA

NEPA Criteria

An environmental document prepared to comply with NEPA must consider the context and intensity of the environmental effects that would be caused by, or result from, the locally preferred action. Under NEPA, the significance of an effect is used solely to determine whether an EIS must be prepared. The factors that are taken into account under NEPA to determine the significance of an action in terms of the context and the intensity of its effects are encompassed by the TRPA and CEQA criteria used for this analysis.

TRPA Criteria

The “Public Services” and “Utilities” criteria from the TRPA Initial Environmental Checklist (IEC) were used to evaluate the public services and utilities impacts of the build alternatives. The purpose of the TRPA IEC is primarily to determine if an EIS is required and to help define the topics to be evaluated in greater detail. While many of the IEC checklist questions are conducive for use as significance criteria (that is, they include a defined standard, qualitative or quantitative), many are not, such as some of those for public services and utilities. The project would result in a significant impact on public services and utilities if it would:

- ▲ result in an unplanned effect on, or result in a need to alter, fire or law enforcement protection services;
- ▲ result in a need for new systems, or substantial alterations to existing systems, for power or natural gas, communication systems, stormwater drainage, or solid waste;

- ▲ utilize additional water that would exceed the maximum permitted capacity of the service provider; or
- ▲ utilize additional sewage treatment capacity that would exceed the maximum permitted capacity of the sewage treatment provider.

CEQA Criteria

Based on Appendix G of the State CEQA Guidelines, impacts on public services and utilities would be significant if the project would:

- ▲ result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts to maintain acceptable service ratios, response times, or other performance objectives for fire and law enforcement protection;
- ▲ create a water supply demand in excess of existing entitlements and resources;
- ▲ result in the determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- ▲ exceed wastewater treatment requirements of the applicable regional water quality control board;
- ▲ require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- ▲ be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- ▲ not comply with federal, state, and local statutes and regulations related to solid waste.

ENVIRONMENTAL EFFECTS OF THE PROJECT ALTERNATIVES

Impact 3.5-1: Conflicts with existing utility infrastructure

Transportation improvements and construction of mixed-use development, including replacement housing, for Alternatives B, C, and D could result in conflicts with existing utility infrastructure and require relocation of utilities or access points to utility infrastructure (i.e., water, sewer, electrical, and natural gas services). Depending on the alternative, utility infrastructure that could be affected by the build alternatives is generally located at and around the existing US 50/Pioneer Trail and Pioneer Trail/Echo Road intersections and along existing US 50, Fern Road, Moss Road, Montreal Road, and the lake side of Lake Parkway. TTD would be required to coordinate with utility providers to address the project's conflicts with utility infrastructure. However, the extent to which existing utility infrastructure could be adversely affected, and plans for relocation, have not yet been determined, and plans for any necessary relocation have not yet been determined.

NEPA Environmental Consequences: Mitigation Measure 3.5-1 has been incorporated into Alternatives B, C, D, and E to further reduce to the extent feasible the environmental consequences related to conflicts with existing utility infrastructure; No Impact for Alternative A

CEQA/TRPA Impact Determinations: Less Than Significant for Alternatives B, C, D, and E after implementation of Mitigation Measure 3.5-1; No Impact for Alternative A

The study area contains utility infrastructure for multiple utility providers in California and Nevada. Utility providers within the California portion of the study area include STPUD (water and wastewater), Lakeside Park Association (water), and Liberty Utilities (electricity). Utility providers within the Nevada portion of the study area include DCSID (wastewater), EWC (water), and NV Energy (electricity). Southwest Gas has natural gas infrastructure in both California and Nevada.

Alternative A: No Build (No Project)

With Alternative A, there would be no changes to existing utility lines associated with the project. Thus, there would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Alternative B: Triangle (Locally Preferred Action)

Transportation Improvements

Utility infrastructure that is located in the project site is related to water, sewer, electricity, natural gas, and communications. Alternative B would include the need to cap off and abandon underground utility lines, including for water, sewer, and natural gas, that serve parcels that would be acquired for the project. These parcels are along portions of Moss Road, Montreal Road, Echo Road, and Lake Parkway.

The realigned US 50 would not follow existing roadway alignments through the Rocky Point neighborhood west of the Heavenly Village Center and would involve construction of a new US 50/Pioneer Trail intersection, widening of existing roads, and displacement of existing residential, commercial, and hotel/motel buildings. These activities would interfere with operation of STPUD infrastructure, including water and sewer lines, sewer manholes, and hydrants shown in Exhibit 3.5-1. For Alternative B transportation improvements, relocation of utility infrastructure could occur at and around the existing US 50/Pioneer Trail intersection and along Moss Road, Montreal Road, and the lake side of Lake Parkway (Cotulla et al., pers. comm., 2016). STPUD has expressed concern about maintaining access to district facilities within the study area. As the project goes through further design refinements, TTD would continue coordination with STPUD to address relocation and reconstruction of specific water and sewer infrastructure within the study area and to ensure that access to district facilities is maintained.

Alternative B transportation improvements, including the new US 50/Pioneer Trail intersection, realigned US 50 through the Rocky Point neighborhood west of the Heavenly Village Center, new US 50/Heavenly Village Way intersection, and widening of the existing Montreal Road and Lake Parkway approximately 150 feet northeast of the existing Heavenly Village Way/Lake Parkway intersection, would interfere with operation of Liberty Utility electricity infrastructure. Liberty Utilities has indicated that the project would require realignment of electrical transmission facilities within the study area (Perra, pers. comm., 2016), including the existing 60 kV transmission lines that are located near the existing Montreal Road/Echo Road, the existing Montreal Road/Fern Road intersection, along Pioneer Trail between Echo Road and Primrose Road, and along the mountain side of Montreal Road between Echo Road and approximately 150 feet northeast of the Heavenly Village Way/Lake Parkway intersection.

Natural gas lines serving parcels that would be acquired for the project in the Rocky Point neighborhood west of Heavenly Village Center would need to be capped and abandoned. For Alternative B transportation improvements, relocation of natural gas infrastructure could occur at and around the existing US 50/Pioneer Trail intersection and along existing US 50, Moss Road, Montreal Road, and the lake side of Lake Parkway. As the project goes through further design refinements, TTD would coordinate with Southwest Gas to identify any gas lines that would need to be capped and abandoned within this neighborhood.

The transportation improvements and new sidewalk on the lake side of US 50 between Lake Parkway and State Route (SR) 207 would interfere with operation of NV Energy infrastructure. Specifically, overhead electricity lines and associated poles would need to be relocated beyond the edge of the new sidewalk and placed underground. As the project goes through further design refinements, TTD would coordinate with NV Energy to relocate this infrastructure. Alternative B would not interfere with operation of utilities located beyond the edge of the existing sidewalk on the lake side of US 50 northeast of the US 50/Lake Parkway intersection.

Other water, wastewater, and natural gas utility infrastructure in the Nevada portion of the study area are anticipated to remain in place, but could require some modifications to maintain access. TTD would be required to coordinate with DCSID, EWC, and Southwest Gas to address potential interference with access to their utility lines in the Nevada portion of the study area.

TTD would be required to coordinate relocation of affected utility infrastructure with utility providers prior to construction; however, the extent to which the existing utility infrastructure could be adversely affected, and plans for relocation, have not yet been determined. Thus, this impact would be **potentially significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the transportation improvements included in Alternative B to further reduce to the extent feasible conflicts with utility infrastructure.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative B would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. Impacts of Alternative B mixed-use development, including replacement housing, related to interference with existing utility lines would be similar to those described above, including relocation of overhead electricity lines and access to water, sewer, and natural gas infrastructure.

With regard to mixed-use development Site 2, STPUD has expressed concern related to water lines and sewer gravity lines along Echo Road and Fern Road that extend through this site (Cotulla et al., pers. comm., 2016). The sewer gravity lines connect to a sewer main located in existing US 50. The conceptual plan for mixed-use development does not identify the locations where buildings would be placed on this site; thus, because the STPUD lines are in place under an encroachment permit, access to these lines could be eliminated. Eliminating access at this point in the water and sewer infrastructure system would require STPUD to install additional infrastructure to convey water and sewer flows around this site. Because mixed-use development, including replacement housing, on Site 2 could conflict with STPUD water and wastewater infrastructure at this location, this would be a **potentially significant** impact for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into construction of the replacement housing at the mixed-use development sites as part of Alternative B to further reduce to the extent feasible the environmental consequences related to conflicts with utility infrastructure.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar potential for conflicts with utility infrastructure as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential impacts related to conflicts with utility infrastructure would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative B transportation improvements and mixed-use development, including replacement housing, at one or more of the mixed-use development sites would result in a **potentially significant** impact from the potential for exposure of construction personnel and the public to recognized environmental conditions or previously undocumented contamination.

For the purposes of NEPA, additional mitigation measures have been incorporated into construction of the Alternative B transportation improvements and mixed-use development, including replacement housing, to

further reduce to the extent feasible the environmental consequences related to conflicts with utility infrastructure.

Alternative C: Triangle One-Way

Transportation Improvements

Impacts related to interference with existing utility lines would be similar to those described above for Alternative B transportation improvements. For these reasons, implementation of Alternative C transportation improvements would result in a **potentially significant** impact for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the transportation improvements included in Alternative C to further reduce to the extent feasible conflicts with utility infrastructure.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative C would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. Impacts related to interference with existing utility lines would be similar to those described above for Alternative B mixed-use development, including replacement housing. For these reasons, implementation of Alternative C mixed-use development, including replacement housing, would result in a **potentially significant** impact for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into construction of the replacement housing at the mixed-use development sites as part of Alternative C to further reduce to the extent feasible the environmental consequences related to conflicts with utility infrastructure.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar potential for conflicts with utility infrastructure as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential conflicts with utility infrastructure would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative C transportation improvements and mixed-use development, including replacement housing, at one or more of the mixed-use development sites would result in a **potentially significant** impact from the potential for conflicts with utility infrastructure.

For the purposes of NEPA, additional mitigation measures have been incorporated into construction of the Alternative C transportation improvements and mixed-use development, including replacement housing, to further reduce to the extent feasible the environmental consequences related to conflicts with utility infrastructure.

Alternative D: Project Study Report Alternative 2

Transportation Improvements

Impacts related to interference with existing utility lines would be similar to those described above for Alternative B transportation improvements. The US 50 realignment for Alternative D would be shifted north compared to Alternative B, with a resulting shift in utility interference from a portion of Moss Road (with Alternative B) to portions of Echo Road and Fern Road (with Alternative D). For Alternative D transportation

improvements, relocation of utility infrastructure could occur at and around the existing US 50/Pioneer Trail and Pioneer Trail/Echo Road intersections and along US 50, Fern Road, Montreal Road, and the lake side of Lake Parkway. In spite of this shift in the locations of utility interference, the impacts of Alternative D on utilities would be similar in nature to those described for Alternative B transportation improvements. For these reasons, implementation of Alternative D transportation improvements would result in a **potentially significant** impact for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the transportation improvements included in Alternative D to further reduce to the extent feasible conflicts with utility infrastructure.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative D would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. Impacts related to interference with existing utility lines would be similar to those described above for Alternative B with mixed-use development. Construction of the mixed-use development, including replacement housing, on Sites 1B and 2 for Alternative D would result in interference with access to STPUD water and sewer lines along Echo Road and Fern Road, as described above for Alternative B with mixed-use development. For these reasons, implementation of Alternative D with mixed-use development would result in a **potentially significant** impact for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into construction of the replacement housing at the mixed-use development sites as part of Alternative D to further reduce to the extent feasible the environmental consequences related to conflicts with utility infrastructure.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar potential for conflicts with utility infrastructure as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential conflicts with utility infrastructure would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative D transportation improvements and mixed-use development, including replacement housing, at one or more of the mixed-use development sites would result in a **potentially significant** impact from the potential for conflicts with utility infrastructure.

For the purposes of NEPA, additional mitigation measures have been incorporated into construction of the Alternative D transportation improvements and mixed-use development, including replacement housing, to further reduce to the extent feasible the environmental consequences related to conflicts with utility infrastructure.

Alternative E: Skywalk

Impacts related to interference with existing utility lines would be limited to the portion of the project study area within the Tourist Core that extends through the resort casinos. TTD has not yet determined the extent to which the existing utility infrastructure could be adversely affected, and plans for relocation have not yet been determined. However, it is anticipated that some relocation of underground utilities would be required as a result of placement of underground piles to support the raised pedestrian walkway structure. As discussed above for Alternative B transportation improvements, TTD would be required to coordinate with utility providers to address the project’s conflicts with utility infrastructure. However, the extent to which the existing utility infrastructure could be adversely affected by Alternative E and plans for relocation have not

yet been determined. For these reasons, this impact would be **potentially significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the transportation improvements included in Alternative E to further reduce to the extent feasible conflicts with utility infrastructure.

Impact 3.5-2: Increased demand for water supply

Alternatives B, C, and D transportation improvements would generate water demand for dust suppression during construction that would be met by water trucks as necessary. Implementation of Alternatives B, C, and D mixed-use development, including replacement housing, would require water supplies for operation of residential and commercial uses and for fire suppression. Water demand associated with the mixed-use development, including replacement housing, would require additional water supplies; however, projected demand under each alternative would be substantially less than available supplies. Alternative E would generate water demand for dust suppression during construction, which would be met by water trucks as necessary.

NEPA Environmental Consequences: The design features of Alternatives B, C, D, and E would avoid or minimize water demand environmental consequences such that no additional mitigation measures are needed or feasible to implement; No Impact for Alternative A

CEQA/TRPA Impact Determinations: Less Than Significant for Alternatives B, C, D, and E; No Impact for Alternative A

Alternative A: No Build (No Project)

With Alternative A, there would be no project activity and no changes to water supply. There would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Alternative B: Triangle (Locally Preferred Action)

Transportation Improvements

Alternative B would include construction of the US 50 realignment, intersection improvements, pedestrian overcrossing into Van Sickle Bi-State Park, and pedestrian and bicyclist enhancements. Water would be required during the construction period for dust abatement and fire suppression. Water for dust abatement would be provided by water trucks. Water for fire suppression would be provided by existing hydrants in the study area. During construction activities, a certain number of fire hydrants would have to remain operational at all times, which would be specified in the project's construction documents. Existing fire hydrants in the Rocky Point neighborhood would be relocated during project construction to coincide with the new alignment. Fire hydrants along the mountain side of Lake Parkway also have the potential to be relocated as part of the project. Implementation of Alternative B without mixed-used development would result in a reduction in water demand during operation because residential, hotel/motel, and commercial uses would be removed and water demand associated with dust abatement would be temporary. Existing water demand associated with these displaced uses is 25,000 gpd (28 afy; see Table 3.5-3). This impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative B would avoid or minimize the effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

Table 3.5-3 Existing Uses and Proposed Uses Water Demand Comparison

Alternative	Existing Water Demand for Displaced Uses ¹ (gpd/afy)	New Water Demand (gpd/afy)	Change in Water Demand (+ = increase/- = decrease; gpd/afy)
Transportation Improvements			
B: Triangle (Locally Preferred Action)	25,000 (28)	0	-25,000 (-28)
C: Triangle One-Way	24,000 (27)	0	-24,000 (-27)
D: PSR Alternative 2	29,000 (32)	0	-29,000 (-32)
With Mixed-Use Development			
B: Triangle (Locally Preferred Action)	24,100 (27)	117,550 (132)	93,450 (105)
C: Triangle One-Way	24,100 (27)	117,550 (132)	93,450 (105)
D: PSR Alternative 2	8,400 (9)	119,680 (134)	111,280 (125)

¹ The numbers of displaced multi-family residential, single-family residential, TAUs, and CFA are identified in Tables 2-2 and 2-4 in Chapter 2, "Proposed Project and Project Alternatives." Multi-family residential, single-family residential, and TAU water demand factor = 200 gpd/unit. CFA water demand factor = 1.56 gpd/sq. ft. The existing water demand from TAUs is calculated using the average hotel occupancy rate in the City of South Lake Tahoe, which is 43 percent (TTD 2013:14).

Source: Compiled by Ascent Environmental, Inc. in 2016

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative B would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, "Proposed Project and Project Alternatives"). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements. Construction of the mixed-use development, including replacement housing, would include water demand related to dust abatement and fire suppression. These demands are anticipated to be met through existing water supplies in the study area or by water trucks, as with construction of the project roadway improvements.

Alternative B mixed-use development, including replacement housing, and the transportation improvements would result in displacement of 88 housing units and 14 businesses, including hotel/motels, which would be replaced with up to 229 new housing units and 46,250 square feet of commercial floor area (CFA). Water demand generated by the mixed-use development is shown in Table 3.5-4. Operation of the residential and commercial uses in the mixed-use development would be anticipated to generate water demand equal to 117,550 gpd (132 afy). After displacement of residences, hotel/motels, and commercial units, this would be a net increase in water demand at the mixed-use development sites of 68,450 gpd (77 afy) after taking into account uses displaced by the mixed-use development and the right-of-way needs for the transportation improvements (see Table 3.5-3). This net increase in water demand represents less than 2 percent of the projected water supply and demand shown in Table 3.5-1 above.

As described above, STPUD would pump sufficient supply to meet the demands during each of the single and multiple dry year scenarios, without requiring a reduction in demand or supplemental supplies. Projected water demand within the STPUD service area (see Table 3.5-1) is well within the estimated safe pumping yield of 9,528 afy in the groundwater basin. Because the mixed-use development, including replacement housing, would be subject to density limitations in the Regional Plan and TCAP and would utilize commodity allocations for residential and CFA, it is reasonable to assume that the potential net increase in water demand in the project site resulting from the mixed-use development, including replacement housing, is within the growth assumptions used for determining future water demand in STPUD's UWMP.

Furthermore, STPUD has indicated that sufficient water supply and infrastructure are available to meet the demands of the mixed-use development (Coolidge and Goligoski, pers. comm., 2016). It is important to note that water demand would likely be lower than reported in Table 3.5-4, as new buildings would be equipped with more efficient toilets, water heaters, and other types of residential water uses.

Table 3.5-4 Mixed-Use Development, including Replacement Housing, Estimated Water Demand

Alternative	Multi-Family Residential Units	Commercial Floor Area (square feet)	Multi-Family Residential Water Demand Factor (gpd/unit)	Commercial Water Demand Factor (gpd/square foot)	Total Multi-Family Residential Water Demand (gpd/afy)	Total Commercial Water Demand (gpd/afy)	Total Water Demand (gpd/afy)
A: No Build (No Project)	NA	NA	NA	NA	NA	NA	NA
B: Triangle (Locally Preferred Action)/ C: Triangle One-Way ¹	227	46,250	200	1.56	45,400 (51)	72,150 (81)	117,550 (132)
D: PSR Alternative 2	224	48,000	200	1.56	44,800 (50)	74,880 (84)	119,680 (134)
E: Skywalk	NA	NA	NA	NA	NA	NA	NA

Notes: NA = not applicable

¹ Because Alternatives B and C propose the same amount of mixed-use development, they would result in the same water demand and are shown together.

Source: Coolidge, pers. comm., 2016a

TRPA Code Section 32.4 does not allow project approval unless adequate quantity and quality of water for domestic consumption and fire protection are available, which would be demonstrated through the acquisition of a “will serve” letter from the applicable water purveyor, in this case STPUD for the mixed-use development. Because sufficient water supplies and water supply infrastructure, for residential and commercial use and fire flow, are available to meet demand associated with the mixed-use development, including replacement housing, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development including replacement housing at the mixed-use development sites as part of Alternative B would avoid or minimize the effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar increase in water demand as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential effects related to water demand would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative B transportation improvements and mixed-use development including replacement housing would result in a **less-than-significant** impact on water demand.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and replacement housing at the mixed-use development sites as part of Alternative B would minimize effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

Alternative C: Triangle One-Way

Transportation Improvements

Alternative C transportation improvements would be similar to Alternative B, except that the project footprint would be reduced. Water requirements for construction would be similar to those described above, including

for fire suppression during construction activities and with implementation of the project. Alternative C would displace fewer total housing units than Alternative B (see Table 2-2 in Chapter 2, “Proposed Project and Project Alternatives”). Existing water demand associated with these displaced housing units, CFA, and TAUs is 24,000 gpd (27 afy; see Table 3.5-3). Because water demand during construction would be minimal, short term, and likely supplied by water trucks from available sources, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative C would avoid or minimize the effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative C would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements. Alternative C mixed-use development, including replacement housing, and the transportation improvements would result in displacement of 83 housing units and 14 businesses, including hotel/motels, which would be replaced with up to 229 new housing units and 46,250 square feet of CFA. Operation of the residential and commercial uses in the mixed-use development would generate the same water demand described above for Alternative B with mixed-use development. After displacement of residences, hotel/motels, and commercial units, this would be a net increase in water demand at the mixed-use development sites of 69,450 gpd (78 afy) after taking into account uses displaced by the mixed-use development and the right-of-way needs for the transportation improvements (see Table 3.5-3). This net increase in water demand represents less than 2 percent of the projected water supply and demand shown in Table 3.5-1. Because sufficient water supplies and water supply infrastructure are available, as described above for Alternative B with mixed-use development, to meet the water demand from Alternative C mixed-use development, including replacement housing, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development including replacement housing at the mixed-use development sites as part of Alternative C would avoid or minimize the effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar increase in water demand as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential effects related to water demand would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative C transportation improvements and mixed-use development including replacement housing would result in a **less-than-significant** impact on water demand.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and replacement housing at the mixed-use development sites as part of Alternative C would minimize effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

Alternative D: Project Study Report Alternative 2

Transportation Improvements

Alternative D transportation improvements would be similar to Alternative B, except that the project footprint would be reduced. Water requirements for construction would be similar to those described above for Alternative B, including for fire suppression during construction activities and with implementation of the project. Alternative D would displace fewer housing units than Alternatives B and C (see Table 2-2 in Chapter 2, “Proposed Project and Project Alternatives”). However, Alternative D transportation improvements would result in displacing a greater number of businesses compared to Alternatives B and C. Existing water demand associated with these displaced housing units, CFA, and TAU is 29,000 gpd (32 afy; see Table 3.5-3). Because water demand for construction would be minimal, short term, and likely supplied by water trucks from available sources, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative D would avoid or minimize the effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative D would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements. Alternative D mixed-use development, including replacement housing, and the transportation improvements would result in displacement of 78 housing units and 10 businesses, including hotel/motels, which would be replaced with up to 224 new housing units and 48,000 square feet of CFA. Operation of the residential and commercial uses in the mixed-use development would generate water demand equal to 119,680 gpd (see Table 3.5-3). After displacement of residences, hotel/motels, and commercial units, this would be a net increase in water demand at the project site of 82,280 gpd (92 afy) after taking into account uses displaced by the mixed-use development and the right-of-way needs for the transportation improvements (see Table 3.5-3). This net increase in water demand represents less than 2 percent of the projected water supply and demand shown in Table 3.5-1. Because sufficient water supplies and water supply infrastructure are available to meet the water demand from Alternative D mixed-use development, including replacement housing, as described above for Alternative B mixed-use development, including replacement housing, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development including replacement housing at the mixed-use development sites as part of Alternative D would avoid or minimize the effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar increase in water demand as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential effects related to water demand would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative D transportation improvements and mixed-use development including replacement housing would result in a **less-than-significant** impact on water demand.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and replacement housing at the mixed-use development sites as part of Alternative D would minimize effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

Alternative E: Skywalk

With Alternative E, water requirements for construction would be similar to those described above for Alternative B transportation improvements including for fire suppression during construction activities and with implementation of this alternative. Because water demand would be minimal, short term, and likely supplied by water trucks from available sources, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative E would avoid or minimize the effects related to water demand such that no additional mitigation measures are needed or feasible to implement.

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

Alternatives B, C, and D transportation improvements and Alternative E would not result in an increased demand on wastewater collection, conveyance, and treatment because construction workers would use portable toilets rather than public wastewater facilities.

Construction of mixed-use development, including replacement housing, for Alternatives B, C, and D would require additional wastewater collection, conveyance, and treatment to serve the additional residential and commercial development. Adequate capacity is available in the wastewater treatment plant to serve the wastewater flows generated by the mixed-use development, including replacement housing. However, the addition of wastewater flows from the mixed-use development would exceed the capacity of one segment of pipe in the wastewater collection and conveyance system near the McDonald's on Lake Tahoe Boulevard and contribute flows to another segment of pipe on Lakeshore Boulevard south of Park Avenue that is already over capacity.

Because no project activity would be implemented with Alternative A, there would be no change in demand for wastewater collection, conveyance, and treatment.

NEPA Environmental Consequences:	Mitigation Measure 3.5-3 has been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to demand for wastewater collection, conveyance, and treatment; No Impact for Alternatives A and E
CEQA/TRPA Impact Determinations:	Less Than Significant for Alternatives B, C, and D after implementation of Mitigation Measure 3.5-3; Less Than Significant for Alternative E; No Impact for Alternative A

Alternative A: No Build (No Project)

With Alternative A, the project would not be implemented. Thus, there would be **no impact** on demand for wastewater collection, conveyance, and treatment for the purposes of NEPA, CEQA, and TRPA.

Alternative B: Triangle (Locally Preferred Action)

Transportation Improvements

With Alternative B transportation improvements, construction workers would be served by portable toilets. There would be no increase in wastewater collection, conveyance, and treatment needed to implement this scenario. There would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative B would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements. Alternative B with mixed-use development, including replacement housing, would result in displacement of 88 housing units and construction of up to 227 new housing units. Wastewater flows generated by the mixed-use development are shown in Table 3.5-5. Operation of the residential and commercial uses in the mixed-use development would generate wastewater flows equal to 99,935 gpd. After displacement of residences, hotel/motels, and commercial units for the mixed-use development and the right-of-way needs for the roadway improvements, Alternative B would result in an estimated net increase in wastewater generated at the project site of approximately 60,920 gpd (see Table 3.5-6).

Table 3.5-5 Mixed-Use Development Estimated Wastewater Flows

Alternative	Multi-Family Residential Units	Commercial Floor Area (square feet)	Multi-Family Residential Wastewater Demand Factor (gpd/unit)	Commercial Wastewater Demand Factor (gpd/square feet)	Total Multi-Family Residential Wastewater Flows (gpd)	Total Commercial Wastewater Flows (gpd)	Total Wastewater Flows (gpd)
A: No Build (No Project)	NA	NA	NA	NA	NA	NA	NA
B: Triangle (Locally Preferred Action)/ C: Triangle One-Way ¹	227	46,250	155	1.40	35,185	64,750	99,935
D: PSR Alternative 2	224	48,000	155	1.40	34,720	67,200	101,920
E: Skywalk	NA	NA	NA	NA	NA	NA	NA

NA = not applicable

¹ Because Alternatives B and C propose the same amount of mixed-use development they would result in the same wastewater flows and are shown together here.

Source: Coolidge, pers. comm., 2016a

As described above, the STPUD WWTP has 3.7 mgd of available treatment capacity to meet future demand. The net increase in wastewater flow from Alternative B with mixed-use development, including replacement housing, represents less than 2 percent of the available WWTP capacity. Sufficient wastewater treatment capacity is available to meet the demands of Alternative B with mixed-use development.

The mixed-use development sites are located in areas that are currently served by wastewater collection infrastructure. Construction of the mixed-use development, including replacement housing, would be able to connect to this existing infrastructure. STPUD has indicated that the wastewater infrastructure in the Rocky Point neighborhood west of Heavenly Village Center is operating well (Cotulla et al., pers. comm., 2016). Preliminary modeling results provided by STPUD for the increase in wastewater flows from the project

indicate that the existing sewer system has available capacity to serve the project, with the exception of a 105-foot long section of pipe in the parking lot of McDonald's on Lake Tahoe Boulevard southwest of Wildwood Avenue, between sanitary sewer manhole (SSMH) BJ182 and SSMH BJ181 (Coolidge and Goligoski, pers. comm., 2016:3 – 4). The modeling indicates that with the addition of flows from the project, this section of pipe would surcharge. (Note: surcharging is an indicator of a potential sanitary sewer overflow condition.) Additionally, mixed-use development at Site 3 would contribute wastewater flows to an existing surcharge condition in SSMH BJ25 near Lakeshore Boulevard and Park Avenue.

Table 3.5-6 Existing Uses and Proposed Uses Wastewater Demand Comparison

Alternative	Existing Wastewater Flows for Displaced Parcels ¹ (gpd)	New Wastewater Flows (gpd)	Change in Wastewater Flows (+ = increase/- = decrease; gpd)
Transportation Improvements			
B: Triangle (Locally Preferred Action)	11,780	0	-11,780
C: Triangle One-Way	11,005	0	-11,005
D: PSR Alternative 2	21,202	0	-21,002
With Mixed-Use Development			
B: Triangle (Locally Preferred Action)	18,234	99,935	60,921
C: Triangle One-Way	18,234	99,935	70,696
D: PSR Alternative 2	7,262	101,920	73,456

¹ Wastewater demand for existing uses was determined based on the estimated amount of commercial floor area (CFA) and housing units displaced by the alternatives. These estimates do not take into account the change in use of water from existing TAUs that would be displaced in order to be consistent with analysis conducted by STPUD; therefore, the estimated net change in wastewater flows are conservative. The wastewater demand factors are 1.4 gpd per square foot of CFA and 155 gpd per housing unit.

Source: Coolidge, pers. comm., 2016a, 2016b; Compiled by Ascent Environmental Inc. in 2016

The project-level environmental analysis that would be conducted for the detailed project design for the mixed-use development, including replacement housing, would include analysis of the exact magnitude of commercial and residential development on increased flows to the STPUD sanitary sewer system.

The capacity of the wastewater treatment plant is sufficient to serve the additional wastewater flows generated by Alternative B with mixed-use development. Because capacity of the wastewater collection/conveyance infrastructure in one section of sewer pipe would be exceeded with the addition of wastewater flows from Alternative B mixed-use development, including replacement housing, and would contribute wastewater flows to an existing surcharge condition in another section of sewer pipe this impact would be **potentially significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the construction of the mixed-use development, including replacement housing, as part of Alternative B to further reduce to the extent feasible the environmental consequences related to demand for wastewater collection, conveyance, and treatment such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for wastewater collection, conveyance, and treatment as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential wastewater impacts would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative B transportation improvements and mixed-use development, including replacement housing, would result in a **potentially significant** impact on wastewater demand.

For the purposes of NEPA, additional mitigation measures have been incorporated into Alternative B to further reduce to the extent feasible the environmental consequences related to demand for wastewater collection, conveyance, and treatment.

Alternative C: Triangle One-Way

Transportation Improvements

With Alternative C transportation improvements, construction workers would be served by portable toilets. There would be no increase in wastewater collection, conveyance, and treatment needed to implement this scenario. There would be **no impact** for purposes of NEPA, CEQA, and TRPA.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative C would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements. Alternative C mixed-use development, including replacement housing, would result in displacement of 83 housing units that could be replaced with up to 227 new housing units. During operation, the residential and commercial uses in the mixed-use development would generate wastewater flows equal to 99,935 gpd. After displacement of residences, hotel/motels, and commercial units for the mixed-use development and the right-of-way needs for the roadway improvements, Alternative C would result in an estimated net increase in wastewater generated at the mixed-use development sites of approximately 70,700 gpd (see Table 3.5-6).

The net increase in wastewater flow from Alternative C represents less than 2 percent of the available WWTP capacity. Sufficient wastewater treatment capacity is available to meet the demands of Alternative C mixed-use development, including replacement housing. However, as described above for Alternative B mixed-use development, including replacement housing, STPUD staff has indicated that the addition of wastewater flows from Alternative C mixed-use development would result in surcharge of a sewer pipe near Lake Tahoe Boulevard southwest of Wildwood Avenue (between SSMH BJ182 and SSMH BJ181), would contribute wastewater flows to an existing surcharge condition at SSMH BJ25, and other segments of the collection system would be near their maximum capacity once project discharges are added (Coolidge and Goligoski, pers. comm., 2016:3 – 4).

The project-level environmental analysis that would be conducted for the detailed project design for the mixed-use development, including replacement housing, would include analysis of the exact magnitude of commercial and residential development on increased flows to the STPUD sanitary sewer system.

The capacity of the wastewater treatment plant is sufficient to serve the additional wastewater flows generated by Alternative C mixed-use development, including replacement housing. Because capacity of the wastewater collection/conveyance infrastructure in one section of sewer pipe would be exceeded with the addition of wastewater flows from Alternative C mixed-use development, including replacement housing, and would contribute wastewater flows to an existing surcharge condition in another section of sewer pipe this impact would be **potentially significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the construction of the mixed-use development, including replacement housing, as part of Alternative C to further reduce to the extent feasible the environmental consequences related to demand for wastewater collection, conveyance, and treatment such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for wastewater collection, conveyance, and treatment as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential wastewater impacts would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative C transportation improvements and mixed-use development, including replacement housing, would result in a **potentially significant** impact on wastewater collection, conveyance, and treatment.

For the purposes of NEPA, additional mitigation measures have been incorporated into Alternative C to further reduce to the extent feasible the environmental consequences related to demand for wastewater collection, conveyance, and treatment.

Alternative D: Project Study Report Alternative 2

Transportation Improvements

With Alternative D transportation improvements, construction workers would be served by portable toilets. There would be no increase in wastewater collection, conveyance, and treatment needed to implement this scenario. There would be **no impact** for purposes of NEPA, CEQA, and TRPA.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative D would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements. Alternative D mixed-use development, including replacement housing, would result in displacement of 78 housing units that could be replaced with up to 224 new housing units. During operation, the residential and commercial uses in the mixed-use development would generate wastewater flows equal to 101,920 gpd. After displacement of residences, hotel/motels, and commercial units for the mixed-use development and the right-of-way needs for the roadway improvements, Alternative D would result in an estimated net increase in wastewater generated at the mixed-use development sites of approximately 73,460 gpd (see Table 3.5-6).

The net increase in wastewater flow from Alternative D represents less than 2 percent of the available wastewater treatment plant capacity. Sufficient wastewater treatment capacity is available to meet the demands of Alternative D with mixed-use development. However, as described above for Alternative B with mixed-use development, STPUD staff has indicated that the addition of wastewater flows from Alternative D with mixed-use development would result in a surcharge of a sewer pipe near Lake Tahoe Boulevard southwest of Wildwood Avenue (between SSMH BJ182 and SSMH BJ181) and other segments of the collection system would be near their maximum capacity once project discharges are added (Coolidge and Goligowski, pers. comm., 2016:3 – 4).

The project-level environmental analysis that would be conducted for the detailed project design for the mixed-use development, including replacement housing, would include analysis of the exact magnitude of commercial and residential development on increased flows to the STPUD sanitary sewer system.

The capacity of the wastewater treatment plant is sufficient to serve the additional wastewater flows generated by Alternative D with mixed-use development. Because capacity of the wastewater collection/conveyance infrastructure in one section of sewer pipe would be exceeded with the addition of wastewater flows from Alternative D mixed-use development, including replacement housing, and would contribute wastewater flows to an existing surcharge condition in another section of sewer pipe this impact would be **potentially significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, additional mitigation measures have been incorporated into the construction of the mixed-use development, including replacement housing, as part of Alternative D to further reduce to the extent feasible the environmental consequences related to demand for wastewater collection, conveyance, and treatment such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for wastewater collection, conveyance, and treatment as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential wastewater impacts would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative D transportation improvements and mixed-use development, including replacement housing, would result in a **potentially significant** impact on wastewater collection, conveyance, and treatment.

For the purposes of NEPA, additional mitigation measures have been incorporated into Alternative D to further reduce to the extent feasible the environmental consequences related to demand for wastewater collection, conveyance, and treatment.

Alternative E: Skywalk

With Alternative E, construction workers would be served by portable toilets. There would be no increase in wastewater collection, conveyance, and treatment needed to implement this scenario. There would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Impact 3.5-4: Increased generation of solid waste

Under the build alternatives, waste generated during land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities would require disposal. Under Alternatives B, C, and D mixed-use development, including replacement housing, scenarios, solid waste generation would increase over the long term as a result of new housing units and commercial units. However, the Lockwood Regional Landfill presently has a capacity of approximately 280 million cubic yards. Waste generated as part of the project would not represent a substantial proportion of remaining capacity at the landfill. Additionally, Alternatives B, C, D, and E would implement a Construction Waste Management Plan and divert a minimum of 65 percent of construction and demolition waste from the landfill.

NEPA Environmental Consequences: The design features of Alternatives B, C, D, and E would avoid or minimize solid waste demand environmental consequences such that no additional mitigation measures are needed or feasible to implement; No Impact for Alternative A

CEQA/TRPA Impact Determinations: Less Than Significant for Alternatives B, C, D, and E; No Impact for Alternative A

Alternative A: No Build (No Project)

With Alternative A, the project would not be constructed. Thus, there would be no increase in population that could result in changes to solid waste generation. There would be **no impact** for purposes of NEPA, CEQA, and TRPA.

Alternative B: Triangle (Locally Preferred Action)**Transportation Improvements**

Implementation of Alternative B transportation improvements would require land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities. These activities are anticipated to generate approximately 5,700 cubic yards of solid waste, based on preliminary analysis (modeled by Ascent Environmental in 2016). Waste from demolition and site preparation activities would be hauled to and disposed of at Lockwood Regional Landfill in Storey County, Nevada, which has approximately 280 million cubic yards of available capacity (NDEP 2016). However, in accordance with Section 5.408 of the CALGreen Code, the project would submit and complete a Construction Waste Management Plan to the City of South Lake Tahoe and would recycle and/or salvage for reuse a minimum of 65 percent of construction and demolition (C&D) debris generated during project construction. Because adequate capacity is available to serve Alternative B transportation improvements and activities would be carried out in compliance with regulations pertaining to solid waste disposal and diversion of C&D waste, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative B would avoid or minimize the environmental consequences related to solid waste disposal and C&D diversion such that no additional mitigation measures are needed or feasible to implement.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative B would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

As described above, Alternative B transportation improvements would generate 5,700 cubic yards of solid waste during construction and demolition of the roadway alignment. The addition of mixed-use development would result in construction of up to 46,250 square feet of commercial space and 227 housing units, for a net increase of 139 housing units. As discussed in Section 3.4, “Community Impacts,” on average this additional development would generate approximately 186 new jobs and a net increase of 317 residents. The net increase in waste generated by the mixed-use development, including replacement housing, for each alternative is shown in Table 3.5-7. Given assumptions made in the Regional Plan Update EIS (see “Methods and Assumptions” above), Alternative B mixed-use development, including replacement housing, would generate approximately 440 tons of waste per year from new residents and approximately 350 tons of waste per year from new jobs, for a total of approximately 790 tons (1,060 cubic yards) of waste per year. It is important to note that the amount of solid waste generated by Alternative B mixed-use development, including replacement housing, is substantially overestimated because the assumptions do not account for diversion of recyclable materials or waste reduction requirements, and assumes that retail uses would be placed in all new commercial units. This alternative would result in a small increase in solid waste generated (0.0004 percent) per year of the remaining approximately 280 million cubic yards of space available at Lockwood Regional Landfill. Additionally, prior to issuance of building permits, the mixed-use development proponents would be required to prepare and implement a Construction Waste Management Plan, which would result in diverting a minimum of 65 percent of C&D waste from the landfill. This impact would be **less than significant** for the purposes of CEQA and TRPA.

Table 3.5-7 Estimated Solid Waste Generated by Mixed-Use Development

Alternative	Net Increase in Residents	Net Increase in Employees	Total Residential Waste ¹ (tons/year)	Total Commercial Waste ¹ (tons/year)	Total Waste (tons/year)	Total Waste (cubic yard/year)
A: No Build	NA	NA	NA	NA	NA	NA
B: Triangle (Locally Preferred Action)	317	186	441	353	794	1,059
C: Triangle One-Way	328	186	456	353	809	1,079
D: PSR Alternative 2	333	210	463	339	862	1,149
E: Skywalk	NA	NA	NA	NA	NA	NA

¹ The solid waste generation factors used in the analysis of total solid waste generated are 1.39 tons per resident per year and 1.9 tons per employee per year.

NA = not applicable

Source: TRPA 2012a:3.13-10; CalRecycle 2016; compiled by Ascent Environmental in 2016

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, at the mixed-use development sites as part of Alternative B would avoid or minimize the environmental consequences related to solid waste disposal such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for solid waste disposal and C&D diversion as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential solid waste impacts would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative B transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on solid waste disposal.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative B would minimize the solid waste environmental consequences such that no additional mitigation measures are needed or feasible to implement.

Alternative C: Triangle One-Way

Transportation Improvements

Implementation of Alternative C transportation improvements would require land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities. These activities would generate approximately 5,700 cubic yards of solid waste (modeled by Ascent Environmental in 2016). Waste from demolition and site preparation activities could be hauled to and disposed of at Lockwood Regional Landfill in Storey County, Nevada, which has approximately 280 million cubic yards of available capacity (NDEP 2016). However, some materials would be reused or recycled, including wood, concrete, and other types of masonry and drywall. While the amount of material diverted is unknown at this time, it is reasonable to assume that reuse and recycling of materials would occur to the extent feasible. As described above for Alternative B, Alternative C would implement a Construction Waste Management Plan and divert a minimum of 65 percent of C&D waste from the landfill. Because adequate capacity is available to serve Alternative C transportation improvements and construction activities would be carried out in compliance with regulations pertaining to solid waste disposal, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative C would avoid or minimize the environmental consequences related to solid waste disposal and C&D diversion such that no additional mitigation measures are needed or feasible to implement.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative C would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

As described above, Alternative C transportation improvements would generate 5,700 cubic yards of solid waste during construction and demolition of the roadway alignment. The addition of mixed-use development would result in construction of up to 46,250 square feet of commercial space and a net increase of 144 housing units. As discussed in Section 3.4, “Community Impacts,” on average this would generate approximately 186 new jobs and a net increase of 328 residents. Given assumptions made in the Regional Plan Update Draft EIS (see “Methods and Assumptions” above), this additional development would amount to approximately 460 tons of waste from new residents and approximately 350 tons of waste from new jobs (see Table 3.5-7), for a total of approximately 810 tons (1,080 cubic yards) of waste per year. It is important to note that the amount of solid waste generated by Alternative C mixed-use development, including replacement housing, is substantially overestimated because the assumptions do not account for diversion of recyclable materials or waste reduction requirements, and assumes that retail uses would be placed in all new commercial units. This alternative would result in a small incremental increase (0.0004 percent) per year of the remaining approximately 280 million cubic yards of space available at Lockwood Regional Landfill. Additionally, as described above for Alternative B, Alternative C mixed-use development, including replacement housing, would implement a Construction Waste Management Plan and divert a minimum of 65 percent of C&D waste from the landfill. This impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, at the mixed-use development sites as part of Alternative C would avoid or minimize the environmental consequences related to solid waste disposal such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for solid waste disposal and C&D diversion as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential solid waste impacts would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative C transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on solid waste disposal.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative C would minimize the solid waste environmental consequences such that no additional mitigation measures are needed or feasible to implement.

Alternative D: Project Study Report Alternative 2

Transportation Improvements

Implementation of Alternative D transportation improvements would require land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities. These activities are anticipated to generate 5,700 cubic yards of solid waste (modeled by Ascent Environmental in 2016). Waste from demolition and site preparation activities could be hauled to and disposed of at Lockwood Regional Landfill in Storey County, Nevada, which has approximately 280 million cubic yards of available capacity (NDEP 2016). However, some materials would be reused or recycled, including wood, concrete, and other types of masonry and drywall. While the amount of material diverted is unknown at this time, it is reasonable to assume that reuse and recycling of materials would occur to the extent feasible. Because adequate capacity is available to serve Alternative D transportation improvements and activities would be carried out in compliance with regulations pertaining to C&D waste diversion minimum requirements and solid waste disposal, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative D would avoid or minimize the environmental consequences related to solid waste disposal and C&D diversion such that no additional mitigation measures are needed or feasible to implement.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative D would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

As described above, Alternative D transportation improvements would generate 5,700 cubic yards of solid waste during construction and demolition of the roadway alignment. The addition of mixed-use development would result in construction of up to 48,000 square feet of commercial space and a net increase of 132 housing units. As discussed in Section 3.4, “Community Impacts,” on average this additional development would generate approximately 210 new jobs and a net increase of 333 residents. Given assumptions made in the Regional Plan Update Draft EIS (see “Methods and Assumptions” above), this would amount to approximately 460 tons of waste from new residents and approximately 400 tons of waste from new jobs, for a total of approximately 860 tons (1,150 cubic yards) of waste per year (see Table 3.5-7). It is important to note that the amount of solid waste generated by Alternative D mixed-use development, including replacement housing, is substantially overestimated because the assumptions do not account for diversion of recyclable materials or waste reduction requirements, and assumes that retail uses would be placed in all new commercial areas. This alternative would result in a small incremental increase (0.0004 percent) per year of the remaining approximately 280 million cubic yards of space available Lockwood Regional Landfill. Additionally, as described above for Alternative B, Alternative D mixed-use development, including replacement housing, would implement a Construction Waste Management Plan and divert a minimum of 65 percent of C&D waste from the landfill. This impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, at the mixed-use development sites as part of Alternative D would avoid or minimize the environmental consequences related to solid waste disposal such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for solid waste disposal and C&D diversion as described for the mixed-use

development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential solid waste impacts would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative D transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on solid waste disposal.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative D would minimize the solid waste environmental consequences such that no additional mitigation measures are needed or feasible to implement.

Alternative E: Skywalk

Implementation of Alternative E would require land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities. The disturbance area for construction of Alternative E is smaller than that for Alternative B, and implementation of Alternative E would not involve the displacement of residential, hotel/motel, and commercial buildings that would occur with Alternative B. For these reasons, construction activities for Alternative E are anticipated to generate less solid waste than Alternative B. Wastes from demolition and site preparation activities could be hauled to and disposed of at Lockwood Regional Landfill, which has approximately 280 million cubic yards of available capacity (NDEP 2016). As described above for Alternative B, Alternative E would implement a Construction Waste Management Plan and divert a minimum of 65 percent of C&D waste from the landfill. Because adequate capacity is available to serve Alternative E and activities would be carried out in compliance with regulations pertaining to solid waste disposal, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative E would avoid or minimize the environmental consequences related to solid waste disposal and C&D diversion such that no additional mitigation measures are needed or feasible to implement.

Impact 3.5-5: Inefficient and wasteful consumption of energy

The energy used for project construction would not require substantial additional power generation capacity or substantially increase peak or base-period demand for electricity and other forms of energy. New housing units associated with Alternatives B, C, and D mixed-use development, including replacement housing, would be required to meet Title 24 standards for energy efficiency. The mixed-use development sites would be concentrated within walking distance of retail, restaurants, and services. In addition, vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the Region.

NEPA Environmental Consequences: The design features of Alternatives B, C, D, and E would avoid or minimize the environmental consequences related to inefficient or wasteful consumption of energy; No Impact for Alternative A

CEQA/TRPA Impact Determinations: Less Than Significant for Alternatives B, C, D, and E; No Impact for Alternative A

Alternative A: No Build (No Project)

With Alternative A, the project would not be constructed. Thus, there would be no increase in population that could result in changes to energy consumption. There would be **no impact** for purposes of NEPA, CEQA, and TRPA.

Alternative B: Triangle (Locally Preferred Action)

Transportation Improvements

Energy would be required to construct project elements, operate and maintain construction equipment, and produce and transport construction materials. The one-time energy expenditure required to construct the physical infrastructure associated with Alternative B transportation improvements would be non-recoverable. Most energy consumption would result from operation of construction equipment, and actual indirect energy consumption (e.g., waste transport and disposal) may vary from the modeled values, depending on the final design of individual structures. The energy used for project construction would not require substantial additional capacity or substantially increase peak or base-period demand for electricity and other forms of energy. The project has no unusual characteristics that would necessitate the use of construction equipment that would be less energy efficient than typical equipment used at comparable construction sites in other parts of the state. Non-renewable energy would not be consumed in a wasteful, inefficient, or unnecessary manner when compared to other construction sites in the Region. This impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative B would avoid or minimize the environmental consequences related to inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative B would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

Alternative B mixed-used development, including replacement housing, would result in a net increase in the number of housing units within the study area and, therefore, an increase in the amount of electricity and natural gas needed. Project operation would be typical of residential and commercial uses, requiring electricity and natural gas for lighting, climate control, and day-to-day activities. Operational energy use would also include landscape maintenance, snow removal equipment, and groundwater well operation. Indirect energy use would include wastewater treatment and solid waste removal. Electricity and natural gas supplies, from Liberty Energy and Southwest Gas Corporation, would be available to serve the mixed-use development, including replacement housing, proposed for Alternative B (Perra, pers. comm., 2016; Echeverria, pers. comm., 2016).

The project would be required to meet Title 24 standards for energy efficiency. Identified housing and commercial areas would be concentrated within walking distance of retail, restaurants, and services. The demolition and replacement of housing within the study area would provide an opportunity to update outdated infrastructure and improve energy-efficiency of buildings. Fuel consumption associated with vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the Region. The project is located near public transportation and in an urban area, consistent with sustainable community design practices. As discussed further in Impact 3.14-1 in Section 3.14, “Greenhouse Gas Emissions and Climate Change,” the project would meet the GHG efficiency standard established in the 2020 statewide GHG emissions target.

Appendix F of the State CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce “wasteful, inefficient, and unnecessary” energy usage (Public Resources Code Section 21100[b][3]). While the project would increase

the overall energy demand in the study area, new construction would provide an opportunity to decrease per capita energy usage compared to the existing housing through design considerations. In addition, due to the location of the project near an urban center, mixed-use development would be consistent with sustainable community design practices, which are generally intended to reduce GHG emissions associated with fuel consumption. Thus, Alternative B mixed-use development, including replacement housing, would not result in an inefficient or wasteful consumption of energy. This impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, at the mixed-use development sites as part of Alternative B would avoid or minimize the environmental consequences related to inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar potential for inefficient or wasteful consumption of energy as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential impacts related to inefficient or wasteful consumption of energy would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative B transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on inefficient or wasteful consumption of energy.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative B would minimize the environmental consequences of inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

Alternative C: Triangle One-Way

Transportation Improvements

Energy use with Alternative C transportation improvements would be the same as with Alternative B. For the reasons discussed above for Alternative B, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative C would avoid or minimize the environmental consequences related to inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative C would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

Energy use for Alternative C mixed-use development, including replacement housing, would be the same as for Alternative B. For the reasons discussed above for Alternative B, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, at the mixed-use development sites as part of Alternative C would avoid or minimize the environmental consequences related to inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar potential for inefficient or wasteful consumption of energy as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential impacts related to inefficient or wasteful consumption of energy would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative C transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on inefficient or wasteful consumption of energy.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative C would minimize the environmental consequences of inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

Alternative D: Project Study Report Alternative 2

Transportation Improvements

Energy use with Alternative D transportation improvements would be the same as with Alternative B. For the reasons discussed above for Alternative B, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative D would avoid or minimize the environmental consequences related to inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative D would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

Energy use for Alternative D mixed-use development, including replacement housing, would be the same as for Alternative B. For the reasons discussed above for Alternative B, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, at the mixed-use development sites as part of Alternative D would avoid or minimize the environmental consequences related to inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar potential for inefficient or wasteful consumption of energy as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential impacts related to inefficient or wasteful consumption of energy would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative D transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on inefficient or wasteful consumption of energy.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative D would minimize the environmental consequences of inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

Alternative E: Skywalk

Energy use with Alternative E would have characteristics similar to Alternative B; however, construction activities would be less extensive, leading to substantially less energy use. For the reasons discussed above for Alternative B, this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the transportation improvements included in Alternative E would avoid or minimize the environmental consequences related to inefficient or wasteful consumption of energy such that no additional mitigation measures are needed or feasible to implement.

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

Multiple local, state, and federal agencies provide police, fire, and emergency services to the study area throughout high and low tourist seasons. Because Alternatives B, C, and D transportation improvements would not result in an increased population, there would be no increase in demand for police, fire, or emergency services. With Alternatives B, C, and D mixed-use development, including replacement housing, population increases would not be substantial enough to require additional police, fire, or emergency services. Demand for law enforcement, fire, and emergency services would not increase with Alternatives A and E.

NEPA Environmental Consequences: The design features of Alternatives B, C, and D would avoid or minimize environmental consequences related to demand for law enforcement, fire, and emergency services such that no additional mitigation measures are needed or feasible to implement; No Impact for Alternatives A and E

CEQA/TRPA Impact Determinations: Less Than Significant for Alternatives B, C, and D; No Impact for Alternatives A and E

Alternative A: No Build (No Project)

With Alternative A, the project would not be constructed. Thus, there would be no increase in population that could result in an increased demand for law enforcement or fire and emergency services. There would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Alternative B: Triangle (Locally Preferred Action)

Transportation Improvements

The study area is located in a tourist destination, marked by a variety of active recreational opportunities, including boating, hiking, cycling, skiing, and passive forms of recreation. Multiple local, state, and federal agencies provide police, fire, and emergency services to the study area throughout high and low tourist seasons. Areas within the study area are currently developed and are served by the South Lake Tahoe Police Department, SLTFD, and TDFPD. Without construction of new mixed-use development, including replacement housing, the permanent population within the study area would decrease with demolition of housing units; however, fluctuations in population related to tourism would not be altered by the project and would continue to occur on a seasonal basis. Furthermore, displaced residents are expected to relocate within the City of South Lake Tahoe (see discussion under “Mixed-Use Development including Replacement Housing” below), thus, the population levels served by law enforcement and fire and emergency services would not substantially change. Because Alternative B transportation improvements would not result in an increase in the population, there would be no increase in demand for police, fire, or emergency services and, therefore, **no impact** for the purposes of NEPA, CEQA, and TRPA.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative B would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

Construction of mixed-use development, including replacement housing, with Alternative B would result in the construction of up to 212 residential units and removal of 92 housing units. While the City of South Lake Tahoe is not subject to a performance standard regarding law enforcement levels (City of South Lake Tahoe 2010:4.11-12), the ratio of sworn officers to housing units is approximately 1:419 (37 sworn officer:15,500 residential units). Given a net increase of up to 139 housing units, new facilities to support additional law enforcement needs would not be required. Likewise, the SLTFD does not have a standard ratio goal for fire and emergency services. Population increases associated with 139 housing units would not be substantial compared to the more than 15,500 housing units currently served. Regardless, Alternative B mixed-use development, including replacement housing, would be required to analyze the effects related to fire protection, law enforcement, and emergency response services, including consultation with these service providers. This impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, for Alternative B would avoid or minimize the effects related to demand for fire protection, law enforcement, and emergency response services such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for fire protection, law enforcement, and emergency response services as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential effects related to increased demand for fire protection, law enforcement, and emergency services would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative B transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on demand for fire protection, law enforcement, and emergency response services.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative B would minimize the effects related to demand for fire protection, law enforcement, and emergency response services such that no additional mitigation measures are needed or feasible to implement.

Alternative C: Triangle One-Way

Transportation Improvements

Because Alternative C transportation improvements would not result in an increase in the population, there would be no increase in demand for police, fire, or emergency services. For the reasons described above for Alternative B, there would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative C would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

Construction of mixed-use development, including replacement housing, as part of Alternative C would result in a net increase of up to 144 housing units; new facilities to support additional law enforcement needs would not be required. Likewise, the SLTFD does not have a standard ratio goal for fire and emergency services. Population increases associated with 144 housing units would not be substantial compared to the more than 15,500 housing units currently served. This impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, for Alternative C would avoid or minimize the effects related to demand for fire protection, law enforcement, and emergency response services such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for fire protection, law enforcement, and emergency response services as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential effects related to increased demand for fire protection, law enforcement, and emergency services would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative C transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on demand for fire protection, law enforcement, and emergency response services.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative C would minimize the effects related to demand for fire protection, law enforcement, and emergency response services such that no additional mitigation measures are needed or feasible to implement.

Alternative D: Project Study Report Alternative 2

Transportation Improvements

Because Alternative C transportation improvements would not result in an increase in the population, there would be no increase in demand for police, fire, or emergency services. For the reasons described above for Alternative B, there would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative D would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

Construction of mixed-use development, including replacement housing, with Alternative D would result in a net increase of up to 146 housing units; new facilities to support additional law enforcement needs would not be required. Likewise, the SLTFD does not have a standard ratio goal for fire and emergency services. Population increases associated with 146 housing units would not be substantial compared to the more than 15,500 housing units currently served. This impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, for Alternative D would avoid or minimize the effects related to demand for fire protection, law enforcement, and emergency response services such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for fire protection, law enforcement, and emergency response services as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential effects related to increased demand for fire protection, law enforcement, and emergency services would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative D transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on demand for fire protection, law enforcement, and emergency response services.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative D would minimize the effects related to demand for fire protection, law enforcement, and emergency response services such that no additional mitigation measures are needed or feasible to implement.

Alternative E: Skywalk

Implementation of Alternative E would be limited to construction of a raised pedestrian walkway over US 50 through the resort-casino portion of the Tourist Core. No residents would be displaced with Alternative E and no new residences would be constructed. For these reasons, Alternative E would not result in an increase in the population or associated demand for police, fire, or emergency services. Furthermore, Alternative E would not require additional personnel or construction of new facilities associated with police, fire, or emergency services. For these reasons, there would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Impact 3.5-7: Increased demand for public schools

Implementation of Alternatives B, C, and D transportation improvements would result in a decrease in population due to the removal of housing units. This is likely to reduce the number of students in the study area and would not require the construction of additional public schools. With Alternatives B, C, and D mixed-use development, including replacement housing, the number of additional students would be minimal compared to the total student population of the school district and typical fluctuation in enrollment at nearby public schools. Schools would not be affected with Alternative A and E.

NEPA Environmental Consequences: The design features of Alternatives B, C, and D would avoid or minimize the environmental consequences related to demand for schools; No Impact for Alternatives A and E

CEQA/TRPA Impact Determinations: Less Than Significant for Alternatives B, C, and D; No Impact for Alternatives A and E

Alternative A: No Build (No Project)

With Alternative A, the project would not be constructed. Thus, there would be no increase in population that could result in additional enrollment at public schools. There would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Alternative B: Triangle (Locally Preferred Action)**Transportation Improvements**

With Alternative B transportation improvements, population would decrease due to demolition of housing units. Thus, new schools would not be required and there would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative B would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, "Proposed Project and Project Alternatives"). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

With Alternative B mixed-use development, including replacement housing, a net increase of 139 housing units could be constructed. Public schools in the project vicinity include Bijou Community School, South Tahoe Middle School, and South Tahoe High School (see Table 3.5-2 for a complete list of schools in the Lake Tahoe Unified School District). No specific data related to student generation rates exist for the South Lake Tahoe area; however, the El Dorado County estimated rate is 0.338 students per household. According to this rate, the mixed-use development, including replacement housing, could result in approximately 47 new students. This increase would not be substantial compared to the currently enrolled 3,881 students

(2014/2015 school year); would not be substantial compared to the fluctuations in enrollment over the past 5 years (3,793 to 3,881 students); and would not exceed levels observed in the district in the past (Table 3.5-2). As described in Impact 3.4-3 and shown in Table 3.4-9, the small potential increase in permanent employment would be met by the existing local workforce and, thus, would not be expected to increase the population or result in an increase in demand for schools. Thus, no new school facilities would be required and this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, at the mixed-use development sites as part of Alternative B would avoid or minimize the environmental consequences related to demand for schools such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for schools as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential school demand impacts would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative B transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on wastewater collection, conveyance, and treatment.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative B would minimize the environmental consequences related to demand for schools such that no additional mitigation measures are needed or feasible to implement.

Alternative C: Triangle One-Way

Transportation Improvements

With Alternative C transportation improvements, population would decrease due to demolition of housing units. Thus, new schools would not be required and there would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative C would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

With Alternative C mixed-use development, including replacement housing, a net increase of 144 housing units could be constructed. According to the El Dorado County estimated student generation rate, the mixed-use development, including replacement housing, could result in approximately 49 new students. This increase would not be substantial compared to the currently enrolled 3,881 students (2014/2015 school year); would not be substantial compared to the fluctuations in enrollment over the past 5 years (3,793 to 3,881 students); and would not exceed levels observed in the district in the past (Table 3.5-2). Thus, no new school facilities would be required and this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, at the mixed-use development sites as part of Alternative C would avoid or minimize the environmental consequences related to demand for schools such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar demand for schools as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential school demand impacts would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative C transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on wastewater collection, conveyance, and treatment.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative C would minimize the environmental consequences related to demand for schools such that no additional mitigation measures are needed or feasible to implement.

Alternative D: Project Study Report Alternative 2

Transportation Improvements

With Alternative D transportation improvements, population would decrease due to demolition of housing units. Thus, new schools would not be required and there would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

Mixed-Use Development including Replacement Housing

Prior to displacing existing residents, Alternative D would construct replacement housing along with supporting commercial uses that could be located at one or more of three mixed-use development sites identified within the project site (see Exhibits 2-9 and 2-11 in Chapter 2, “Proposed Project and Project Alternatives”). If replacement housing is not constructed at any of these sites, then TTD would construct replacement housing at another location in the South Shore area to be determined prior to displacing any residents. This alternative includes the option for three mixed-use redevelopment sites, which could include replacement housing for displaced residents as well as other commercial uses (e.g., retail, restaurant). Use of one or more of these three sites, or at another location in the South Shore area for replacement housing, would require additional parcel acquisitions beyond that required for the transportation improvements.

With Alternative D mixed-use development, including replacement housing, a net increase of 146 housing units could be constructed. According to the El Dorado County estimated student generation rate, the mixed-use development, including replacement housing, could result in approximately 49 new students. This increase would not be substantial compared to the currently enrolled 3,881 students (2014/2015 school year); would not be substantial compared to the fluctuations in enrollment over the past 5 years (3,793 to 3,881 students); and would not exceed levels observed in the district in the past (Table 3.5-2). Thus, no new school facilities would be required and this impact would be **less than significant** for the purposes of CEQA and TRPA.

For the purposes of NEPA, the design features of the mixed-use development, including replacement housing, at the mixed-use development sites as part of Alternative D would avoid or minimize the environmental consequences related to demand for schools such that no additional mitigation measures are needed or feasible to implement.

Construction of replacement housing at a location other than the three mixed-use development sites could result in a similar potential demand for schools as described for the mixed-use development sites. However, because the location of replacement housing elsewhere is unknown, analysis of the potential school demand impacts would be speculative at this time. Full, project-level environmental review of replacement housing somewhere other than the mixed-use development sites would be required prior to construction of replacement housing and displacement of existing residents.

Conclusion

For the purposes of CEQA and TRPA, taken as a whole, the Alternative D transportation improvements and mixed-use development, including replacement housing, would result in a **less-than-significant** impact on wastewater collection, conveyance, and treatment.

For the purposes of NEPA, taken as a whole, the design features of the transportation improvements and mixed-use development, including replacement housing, as part of Alternative D would minimize the environmental consequences related to demand for schools such that no additional mitigation measures are needed or feasible to implement.

Alternative E: Skywalk

Implementation of Alternative E would be limited to construction of a raised pedestrian walkway over US 50 through the resort-casino portion of the Tourist Core. No residents would be displaced by Alternative E and no new residences would be constructed. As described in Impact 3.4-3 and shown in Table 3.4-9, the small potential increase in permanent employment would be met by the existing local workforce and, thus, would not be expected to increase the population or result in an increase in demand for schools. Alternative E would not generate additional demand for school services, and no new school facilities would be required to be constructed. For these reasons, there would be **no impact** for the purposes of NEPA, CEQA, and TRPA.

3.5.4 Avoidance, Minimization, and/or Mitigation Measures

Mitigation Measure 3.5-1: Prepare and implement a Utility Relocation Plan

This mitigation measure is required for Alternatives B, C, and D transportation improvements and mixed-use development, including replacement housing, and Alternative E, for the purposes of NEPA, CEQA, and TRPA.

Before the start of construction-related activities, including demolition of displaced residential, hotel/motel, and commercial buildings, the TTD (and the project proponent for the mixed-use development) shall coordinate with STPUD, DCSID, EWC, Lakeside Park Association, Liberty Utilities, NV Energy, and Southwest Gas Corporation to relocate utility infrastructure, which is dependent on the alternative and could include infrastructure at and near the existing US 50/Pioneer Trail and Pioneer Trail/Echo Road intersections and along US 50, Fern Road, Moss Road, Primrose Road, Montreal Road, and the lake side of Lake Parkway. The final design plans for the transportation improvements submitted to Caltrans and NDOT shall identify all utility relocations affected by the transportation improvements. To minimize disruption to utility services, relocation of the utility lines shall occur after any required clearing and demolition within the study area and before construction of the realigned US 50 and other transportation improvements. Actions needed to comply with this mitigation measure include coordination with each affected utility company to prepare a utility relocation plan that would, at a minimum, include the following:

- ▲ plans that identify the utility infrastructure elements that require relocation as a result of constructing the project transportation improvements and mixed-use development, including replacement housing;
- ▲ safety measures to avoid any human health hazards or environmental hazards associated with capping and abandoning some utility infrastructure, such as natural gas lines or sewer lines;

- ▲ timing for completion of the utility infrastructure relocation as part of construction of the transportation improvements and mixed-use development, including replacement housing, which shall be scheduled to minimize disruption to the utility companies and their customers;
- ▲ reparations, if required, and certification of necessary additional environmental evaluations and pertinent processes (e.g., CEQA, NEPA, and/or TRPA documents and requirements), all of which shall be completed, as necessary, before final plans for the mixed-use development, including replacement housing, are permitted;
- ▲ preparation and approval by a licensed civil engineer; and
- ▲ approval as adequate by the affected utility companies and Caltrans, NDOT, TTD, and TRPA, as necessary.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-1 would reduce potentially significant impacts related to interference with utility infrastructure because TTD would coordinate with affected utility companies, engineering studies, and environmental analyses to ensure that all utility realignment and/or relocation plans are feasible and compliant with federal, state, and local regulations. Because the utility relocations would occur simultaneously with construction of the project and would be within the project disturbance area (i.e., the study area), the effects of the utility line relocations on the environment would be similar to, and not greater than, the environmental effects of the project, which are assessed throughout the resource sections in this document. Implementation of this measure would reduce impacts to a **less-than-significant** level for all build alternatives for the purposes of CEQA and TRPA.

Because of the reasons stated above, for the purposes of NEPA, the environmental consequences related to interference with utility infrastructure from implementing the build alternatives with Mitigation Measure 3.5-1 **would not be adverse**.

Mitigation Measure 3.5-3: Ensure sufficient capacity in the STPUD wastewater collection and conveyance system

This mitigation measure is required for Alternatives B, C, and D mixed-use development, including replacement housing, for the purposes of NEPA, CEQA, and TRPA.

Prior to completion of project-level environmental review for the mixed-use development, including replacement housing, the project applicant shall coordinate with STPUD to determine the wastewater conveyance demand for a detailed project design, including the number of housing units and square footage of commercial floor area. If STPUD finds that the project-generated peak wastewater flows cause the STPUD line between SSMH BJ182 and SSMH BJ181 to surcharge, then STPUD and the project applicant shall develop plans for and construct improvements that would allow for conveyance of buildout wastewater flows. The project applicant shall be responsible for covering the cost of improvements that would be needed to serve the mixed-use development. The improvements shall be constructed to meet peak wet weather flows in the sewer line between SSMH BJ182 and SSMH BJ181, located near McDonald's and Lake Tahoe Vacation Resort on Lake Tahoe Boulevard. The plans shall identify the timing of the improvements, and that the capacity of the line will be available when needed by the mixed-use development. Replacement of this sewer line shall be completed prior to occupancy of the mixed-use development.

If STPUD finds that project-generated peak wastewater flows contribute to an existing surcharge condition at SSMH BJ25, then STPUD and the project applicant shall either develop plans for and construct improvements that would allow for the conveyance of buildout wastewater flows. Alternatively, the project applicant would be required to pay their fair share towards improvements at SSMH BJ25.

The project applicant shall provide a will-serve letter from STPUD that indicates their wastewater treatment collection and conveyance infrastructure has adequate capacity to serve the mixed-use development,

including replacement housing, and that any necessary improvements to the system have been completed prior to the issuance of occupancy permits by the City of South Lake Tahoe.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-3 would reduce potentially significant impacts related to sufficient capacity in the STPUD wastewater collection and conveyance system because the project applicant would coordinate with STPUD to determine whether the mixed-use development, including replacement housing, would result in surcharging a segment of pipe in the collection system. If the mixed-use development would require replacement of a 105-foot segment of sewer pipe between SSMH BJ182 and SSMH BJ181 then the applicant would construct, in consultation with STPUD, and pay for the necessary improvement prior to when the capacity would be needed for the mixed-use development. Additionally, if the mixed-use development would require improvements to be made at SSMH BJ25 to serve the project, then the project applicant and STPUD would coordinate the completion of these improvements and/or the project applicant would pay their fair share towards improvements at SSMH BJ25.

Replacement of the 105-foot segment of sewer pipe between SSMH BJ182 and SSMH BJ181 would likely include trenching activities within the parking lot of McDonald's on Lake Tahoe Boulevard, which is outside of the study area for the project. The pipe replacement would not result in ground disturbance of any previously undisturbed areas. Because the construction activities would adhere to standard construction practices (including construction outside of noise-sensitive times of day), no unique noise impacts would occur. No new above ground structures would be constructed, thus there would be no significant effects on views from a scenic roadway.

Improvements that could be required at SSMH BJ25, located near Lakeshore Boulevard and Park Avenue outside of the project site, would likely include trenching activities. Infrastructure replacement, which could include sewer pipe, would not result in ground disturbance of any previously undisturbed areas. Because the construction activities would adhere to standard construction practices (including construction outside of noise-sensitive times of day), no unique noise impacts would occur. No new above ground structures would be constructed, thus there would be no significant effects on views from a scenic roadway.

Implementation of this measure would reduce impacts to a **less-than-significant** level for Alternatives B, C, and D mixed-use development, including replacement housing, for the purposes of CEQA and TRPA.

Because of the reasons stated above, for the purposes of NEPA, the environmental consequences on capacity of the STPUD wastewater collection and conveyance system from implementing Alternatives B, C, and D mixed-use development, including replacement housing, with Mitigation Measure 3.5-3 **would not be adverse**.