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CHAPTER 4 – ENVIRONMENTAL IMPACT ASSESSMENT

4.17 CUMULATIVE ANALYSIS

4.17.0 Introduction

This section discusses the potential cumulative impacts related to the construction and operation of the proposed Sierra Pacific Power Company (SPPCo) 625 and 650 Line Upgrade Project (project). The project is being implemented to maintain a safe and reliable transmission system for the north Lake Tahoe area, while accommodating current and projected growth in the area, as described further in Chapter 2 – Project Purpose and Need and Chapter 5 – Detailed Discussion of Significant Impacts. Implementation of the project will not result in a significant cumulative environmental impact in any of resource areas evaluated, with the exception of air quality, where there will be a potentially significant temporary impact as a result of cumulative emissions of nitrogen oxides (NO_x) from the operation of vehicles and equipment during construction.

4.17.1 Significance Criteria

The California Environmental Quality Act (CEQA) defines a cumulative impact as one “which is created as a result of the project...together with other [past, present, and future] projects causing related impacts.” (Guidelines § 15130(a)(1)). Impacts will be considered significant if they exceed the individual criterion established for each resource area as described in Sections 4.1 through 4.16. If the resource area impacts exceed the established criterion, the project’s contribution to a cumulative impact will be analyzed to determine whether it is considerable (Guidelines § 15064(h)(1)).

4.17.2 Timeframe of Analysis

For the purpose of this cumulative impacts analysis, the project is defined in terms of construction duration and post-construction restoration, operation, and maintenance. SPPCo anticipates that construction of the project will take a total of approximately 14 months within a 3-year period (continuous construction is not possible due to weather constraints). Construction is scheduled to begin in May 2011 and be completed by August 2013 (refer to Chapter 3 – Project Description for more detailed schedule information).

Post-construction restoration will occur as needed following the completion of construction at staging areas, pole installation sites, and substations. Post-construction work will include the restoration of original ground contours where excavation and grading has occurred, and the revegetation of disturbed areas. Post-construction work activities are expected to take place in late 2011 for Phase 1 of the project and in late 2012 for Phase 2, prior to the onset of seasonal rain and snow.

Mitigation monitoring and maintenance of the restored areas will continue for a period of 3 to 5 years following the completion of project construction. Upon completion of the project, operation and maintenance practices will occur on a continual basis for the life of the transmission lines, which is anticipated to be approximately 50 years

The analysis of potential cumulative impacts was limited to projects occurring within an approximately 10-mile-wide corridor centered on each of the existing transmission lines (i.e., 5 miles on each side of the lines). The buffer represents the physical extent of the limits in which impacts of the project may occur. It is anticipated that potential cumulative impacts will not occur in conjunction with other projects beyond this distance. A list of past, present, and planned and probable future projects has been developed in accordance with CEQA Guidelines Section 15130(b)) and is presented in Table 4.17-1: Planned and Proposed Projects Within 5 Miles. Only projects that will involve new ground disturbance equal to or greater than 0.3 acre are anticipated to considerably contribute to cumulative impacts, and were therefore analyzed. Smaller projects such as façade remodels and small additions to existing uses and structures are not included because they are unlikely to contribute to cumulative impacts due to their limited size and impact area.

4.17.3 Methodology

Existing conditions and reasonably foreseeable projects were identified within a 5-mile radius of each project facility. Information was gathered from Internet searches of local planning department and state agency websites and through correspondence with agency staff. The following entities were contacted regarding development projects, road and utility improvement projects, and capital investment projects:

- California Department of Transportation (Caltrans)
- Nevada County
- Placer County
- United States (U.S.) Department of Agriculture, Forest Service (USFS)
- Tahoe-Truckee Sanitation Agency (including the Truckee Sanitary District)
- Truckee-Donner Public Utility District
- Tahoe City Public Utilities District
- North Tahoe Public Utilities District
- Tahoe Regional Planning Agency (TRPA)
- Town of Truckee
- Amtrak

4.17.4 Existing/Operating Projects

Land uses in the vicinity of the project consist primarily of forested area on USFS and private lands, but also include open space, recreational facilities, and clusters of single-family residences. Refer to Table 4.9–1: Existing and Designated Land Uses in Section 4.9 Land Use and Planning for information regarding the land uses surrounding each project component. The existing and operating projects in the area consist mainly of continuous light commercial activity in the developed urban areas of Tahoe City, Kings Beach, and Truckee, as well as transportation activities, existing utility infrastructure, and ongoing maintenance to roads and other infrastructure.

Table 4.17-1: Planned and Proposed Projects Within 5 Miles

#	Project Name	Address/Location	Nearest Project Component	Proximity to Project	Description (retail, subdivision, etc.)	Size	Status	Anticipated Construction Schedule	
								Begin	End
Caltrans/Placer County									
1	Kings Beach Commercial Core Improvement Project	North Lake Tahoe Boulevard between Chipmunk Street and State Route (SR) 267	Brockway Substation	0.4 to 0.8 miles	Road upgrades, additional parking and sidewalks, water quality improvements	0.9 miles	Approved	2011	2013
Placer County/TRPA									
2	Cal-Neva Restoration	Stateline Road, Kings Beach	Brockway Substation	1.6 miles	Renovation of existing hotel and casino	4 acres	On Hold	Unknown	Unknown
3	Highlands Village	Intersection of SR 28 and Fabian Way, Tahoe Vista	625 Line	3 miles	128 housing units and 4,000 square feet of commercial space on an 11-acre lot	13 acres	Approved	2009	2011
4	Kings Beach Gas Station	8755 North Lake Tahoe Boulevard, Kings Beach	Brockway Substation	1.0 mile	New 2,640-square-foot gas station convenience store, including eight gas pumps and 11 parking spaces	0.34 acre	Application in Review	2010	2011
5	Kings Beach, Housing Now	Deer Street, Kings Beach	Brockway Substation	0.35 mile	16-unit affordable housing project	0.64 acre	Application in Review	2010	2011
6	Kings Beach, Housing Now	Trout Street, Kings Beach	Brockway Substation	0.45 mile	6-unit affordable housing project	0.32 acre	Application in Review	2010	2011
7	Kings Beach, Housing Now	Fox Street at Brook Avenue, Kings Beach	Brockway Substation	0.6 mile	12-unit affordable housing project	0.43 acre	Application in Review	2010	2011
8	Kings Beach, Housing Now	200 Chipmunk Street at SR 28, Kings Beach	Brockway Substation	0.85 mile	40-unit affordable housing project	3.0 acres	Application in Review	2010	2011
9	Kings Beach Town Center	SR 28 between Coon Street and Fox Street	Brockway Substation	0.55 mile	Mixed use development containing 77,900 square feet of commercial space and 10 residential units	4.1 acres	Application in Review	2010	2012
10	North Tahoe Marina Expansion	7360 North Lake Tahoe Boulevard, Tahoe Vista	650 Line	1.1 miles	Expansion of the marina, including extending the marina facilities by 800 feet in length and 350 feet in width, and expanding the marina to include 200 additional slips	Not Available (NA)	Approved	2012	2013
11	Tahoe Public Safety Center	211 Fairway Drive, Tahoe City	Tahoe City Substation	0.2 mile	20,262-square-foot public safety center to house administrative, fire protection, and training facilities	0.6 acre	Application in Review	2010	2011
12	Northstar Highlands Phase II	Northstar-at-Tahoe Resort, Northstar	Northstar Fold, Northstar Substation	0.5 mile	Subdivision of 494 condominiums and 22 townhomes, employee housing, church, and relocation of maintenance building	1,242.2 acres	Approved	2009	2019

#	Project Name	Address/Location	Nearest Project Component	Proximity to Project	Description (retail, subdivision, etc.)	Size	Status	Anticipated Construction Schedule	
								Begin	End
13	Northstar Overall Mountain Master Plan	Northstar-at-Tahoe Resort, Northstar	Northstar Fold, Northstar Substation	0.5 mile	New lifts and associated terrain, new snowmaking infrastructure, new trails and camping areas, overall site improvements	13,886.25 acres	Application in Review	2010	2012 to 2015
14	Sena@Squaw	Intersection of Squaw Valley Road and SR 89	Squaw Valley Substation	50 feet	240-unit condominium development with a 25,000-square-foot clubhouse	16.39 acres	Application in Review	2011	Unknown
15	Tahoe City Transit Center	64-Acres Park, Tahoe City	Tahoe City Substation, 625 Line	200 feet	Intermodal transit center for regional buses and ski shuttles, including a park-and-ride lot and connections to bike paths	5 acres	Approved	2009	2011
16	Tahoe City Marina Expansion	7320 North Lake Tahoe Boulevard, Tahoe Vista	625 Line, 650 Line	1.0 mile	Expansion of slips at the existing marina, overwater construction and hook-ups, parking area expansion	NA	Approved	2012	2015
17	Tahoe Sands Resort Expansion	6610 North Lake Tahoe Boulevard, Tahoe Vista	625 Line, 650 Line	1.8 miles	Expansion of an existing 67-unit condominium development by 42 units	7.2 acres	On hold	Unknown	Unknown
18	Tahoe Timeshare	6731 North Lake Tahoe Boulevard, Tahoe Vista	625 Line	1.5	10 new timeshare duplexes and workforce housing	5.6 acres	Application in Review	2011	2013
19	Tahoe Vista Partners LLC. Affordable Housing Project	6873 North Lake Tahoe Boulevard, Kings Beach	Brockway Substation	0.5 mile	65 residential units	6.25 acres	Approved	2011	2012
20	Vista Village Workforce Housing	West side of National Avenue, Tahoe Vista	625 Line, 650 Line	1.0 mile	152-unit affordable housing project	12.2 acres	Application in Review	2010	2011
Nevada County									
There are currently no projects proposed within 5 miles.									
North Tahoe Public Utility District (NTPUD)									
There are currently no projects proposed within 5 miles.									
21	Kings Beach Water Storage	Tank 1: SR 267/ Canterberry, Tank 2: Lake Vista Drive, Kings Beach	625 Line, 650 Line	0.5 mile	Two 500,000-gallon water storage tanks	NA	Approved	2009	2011
Tahoe City Public Utility District									
There are currently no projects proposed within 5 miles.									
Tahoe Donner Public Utility District									
There are currently no projects proposed within 5 miles.									
Town of Truckee									
22	Aspen Meadows	Brockway Road between Martis Valley Road and Hope Court	132/650 Line Double-Circuit	0.6 mile	57 multi-family residential units	9.31 acres	Approved	2010	Unknown
23	Assumption Church	Alder Road, 200 feet east of China Camp Road	North Truckee Substation	0.1 mile	10,000-square-foot church	7 acres	Application in Review	2009	Unknown

#	Project Name	Address/Location	Nearest Project Component	Proximity to Project	Description (retail, subdivision, etc.)	Size	Status	Anticipated Construction Schedule	
								Begin	End
24	Joerger Ranch Specific Plan	North of Truckee Airport 0.5 mile east of Prosser Village Road	132/650 Line	2.5 miles	Specific Plan Development for residential, commercial, and industrial uses	70 acres	On Hold	2012	Unknown
25	Pacific Pine Products Industrial Building	10980 Industrial Way	North Truckee Substation	0.2 mile	Industrial building in Truckee Industrial Park	0.6 acre	Approved	Unknown	Unknown
26	Railyard Master Plan	Church Street and Donner Pass Road	Truckee Substation	0.1 mile	Railyard Master Plan amendment to allow a 55,000-square-foot commercial building	Not Available	Approved	Varies	Unknown
27	Silverwood Mixed-Use Building	Hilltop Master Plan Area	650 Line, Truckee	0.4 mile	7,000 square feet of commercial retail/office space and 3,000 square feet for four residential units	0.3 acre	On Hold	Unknown	Unknown
28	Stratton Preliminary Plan Review	Comstock Road	North Truckee Substation	0.2 mile	Tow yard business with 7,200 square feet of industrial floor space and a two-bedroom residential unit	2.4 acres	Approved	Unknown	Unknown
29	Tibbles 4-plex	Palisades Drive, 0.3 mile south of Brockway Road in the Martis Valley	132/650 Line	0.7 mile	Construction of a four-plex apartment building	1.2 acres	On Hold	Unknown	Unknown
Amtrak									
There are currently no projects proposed within 5 miles.									
Tahoe-Truckee Sanitation Agency									
There are currently no projects proposed within 5 miles.									
USFS – Lake Tahoe Basin Unit									
30	Carnelian Fuels Reduction and Healthy Forest Program	Carnelian Bay, Tahoe Vista, Kings Beach	625 Line, 650 Line	1.0 miles	Fuels reduction to reduce fire danger in areas nearest to developed communities	809 acres	Approved	2009	2010
31	Aspen Community Restoration	Throughout the Lake Tahoe Basin	625 Line	1 mile	Restoration of approximately 1,115 acres of aspen stands over the next ten years	1,115 acres	Approved	2009	2011
USFS – Lake Tahoe National Forest Unit									
32	East Fork Thinning	Sawtooth Ridge Area	650 Line	1.5 miles	Thinning the area of trees and shrubs to reduce the fire hazard risk	120 acres	Approved	2009	2010

4.17.5 Foreseeable Projects Inventory

For the purposes of this document, “reasonably foreseeable” refers to projects that federal, state, or local agency representatives have knowledge of as a result of pre-application meetings or the formal application process. Table 4.17-1: Planned and Proposed Projects Within 5 Miles lists known projects that are within 5 miles of 625 and 650 Line Upgrade Project components.

Figure 4.17-1: Planned and Proposed Projects Map shows the location of each development project in respect to the project components. A total of 32 projects have been identified within 5 miles of the project. The projects in the cumulative scenario include a range of project types from residential and commercial development to roadway improvements.

4.17.6 Potential Cumulative Impacts

This section discusses whether, when combined with other past, present, and planned and probable future projects in the area, the 625 and 650 Line Upgrade Project will result in either significant short-term or long-term environmental impacts. Short-term impacts are generally associated with construction of the project, while long-term impacts are those that result from permanent project features or operation of the project.

Construction and operation and maintenance of the project will not impact the following resources and, therefore, will not contribute to a cumulative effect:

- Agricultural Resources
- Land Use and Planning
- Mineral Resources
- Population and Housing

If construction of any of the projects listed in Table 4.17-1: Planned and Proposed Projects Within 5 Miles occurs in close proximity and within the same timeframe as the proposed project, temporary and permanent impacts could also be cumulative. Construction of at least 21 of the developments listed in Table 4.17-1: Planned and Proposed Projects Within 5 Miles may occur during the same timeframe as the project. Eleven of the developments listed in the table also have the potential to be constructed during the same timeframe because their construction timelines are currently unknown. As a result, cumulative temporary impacts to the following resources could occur as a result of the 625 and 650 Line Upgrade Project in conjunction with the other planned and probable development projects:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services

- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Construction of reasonably foreseeable projects (refer to Table 4.17-1: Planned and Proposed Projects Within 5 Miles) near the project components could result in permanent cumulative impacts to the following resources:

- Aesthetics
- Air Quality
- Biological Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality

Aesthetics

Cumulative impacts to visual resources could occur where project facilities are viewed in combination with other past, present, and future developments. The significance of cumulative visual impacts depends upon a number of factors, including the degree to which the viewshed is altered and the extent to which scenic resources in the area are disrupted due to either view obstructions or direct impacts to scenic resource features. Temporary and permanent aesthetic impacts could potentially occur when projects in the north Lake Tahoe area are analyzed cumulatively.

Temporary

The construction schedule for the project may overlap with the construction schedules for planned developments in the area as shown in Table 4.17-1: Planned and Proposed Projects Within 5 Miles. Specifically, the Kings Beach Commercial Core Improvement Project, the Joerger Ranch Specific Plan, Sena@Squaw, and Northstar Highlands Phase II are large enough in scale and scope that there is the potential for adverse cumulative impacts to occur from construction equipment, vehicles, materials, staging areas, and project personnel. However, the construction schedules for the cumulative projects vary significantly (from 2 years to 10 years), so adverse construction-related cumulative aesthetic impacts are unlikely. In addition, any adverse visual impacts during construction would be temporary and are generally accepted by the public. Construction activities occurring in Kings Beach, Truckee, Squaw Valley, and Northstar would also not be visible from each other because they are separated by significant topographic changes in elevation and forested areas. The planned and proposed development projects are also separated by distance, which minimizes cumulative effects to area scenic resources. Thus, the temporary construction-related visual impacts will be cumulative, but they are not expected to be significant.

Permanent

Permanent cumulative visual impacts could occur as a result of project components (e.g., replacement poles, new right-of-way (ROW) for the 625 Line, and substation modifications) being located near other proposed developments in the north Lake Tahoe area.

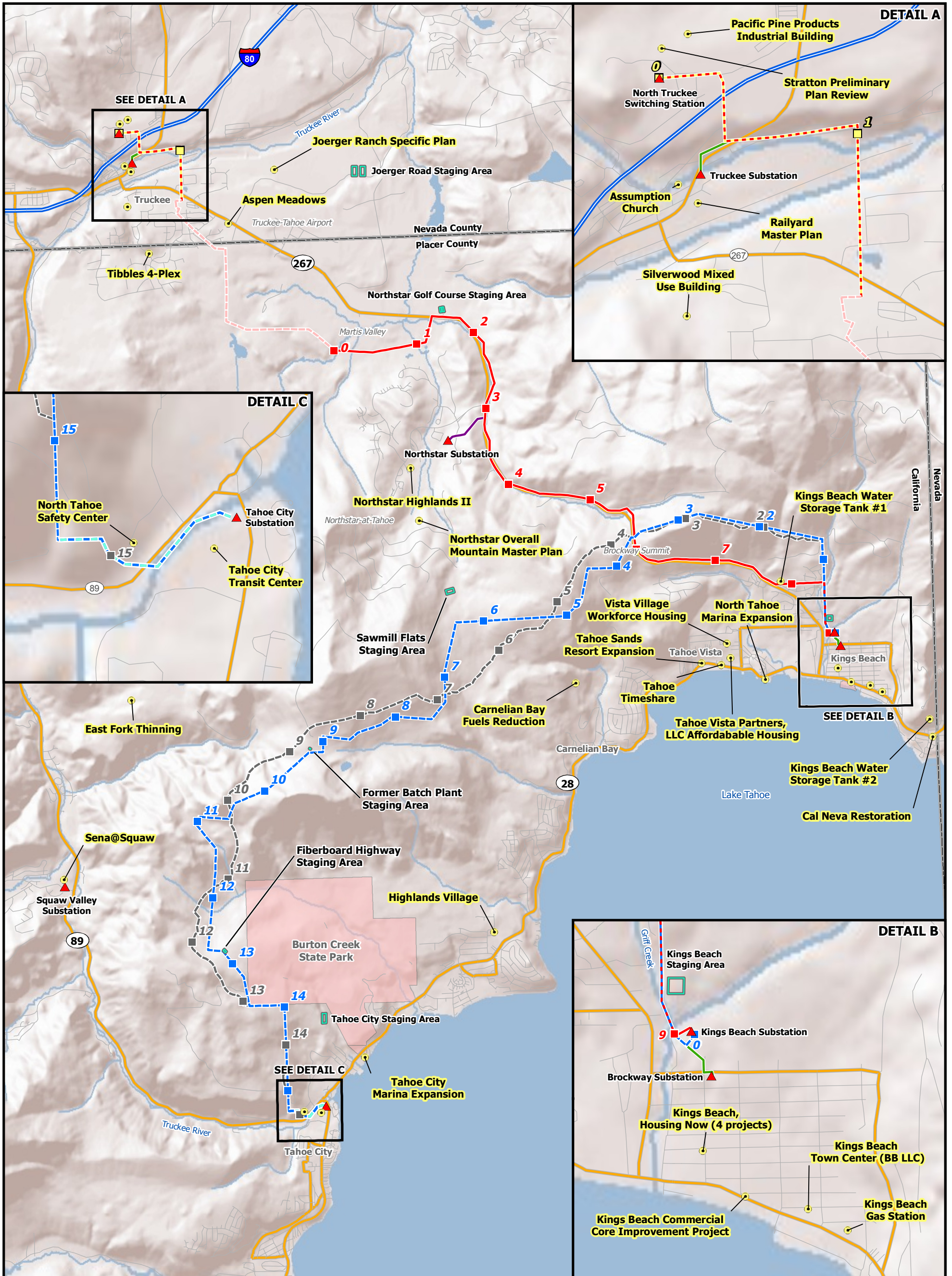


Figure 4.17-1: Planned and Proposed Projects Map

625 and 650 Line Upgrade Project

Sierra Pacific™

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Expected visual change associated with future development in the north Lake Tahoe area will result from a combination of roadway improvements, and planned commercial and residential development projects. When taken together, the introduction of these projects will, to varying degrees, alter the appearance of the existing landscape setting.

The most highly visible portions of the project would be the most likely to contribute to permanent cumulative impacts. The most visible project components are located at the origin and termination points of the transmission lines in the Town of Truckee, Martis Valley, Kings Beach, Tahoe City, and the Northstar-at-Tahoe Resort area. However, in these areas, the transmission lines, poles, and ROWs are existing. While the pole heights will increase by 7 to 12 feet as a result of the project (from an average height of 52 feet), when analyzed across the viewshed and in conjunction with other projects, the increase in height will not be a significant visual change from the existing conditions. In addition, approximately 610 existing wood poles will be removed and replaced with approximately 569 new steel poles, thus decreasing the total number of poles in the area and resulting in a positive visual effect. Therefore, when analyzed cumulatively, the project will not considerably alter the viewshed, disrupt scenic resources with view obstructions, or involve a considerable change from existing conditions.

While the majority of the project components involve upgrades to the existing facilities within their existing ROWs, the 625 Line will be realigned to more closely parallel the Mount Watson Road (also known as the Fiberboard Highway), which is a partially-paved USFS access road linking Tahoe City with Kings Beach. While Mount Watson Road is not utilized as a public thoroughfare, the new ROW would constitute a visible change to recreational users in the area. However, in many locations, the transmission line will be located either above or below grade of the road due to the terrain and grade changes, lessening the overall visual impact. In the cumulative scenario, the only other project in the vicinity of the 625 Line that has a potential to cumulatively impact views is the USFS-sponsored forest thinning activities in the Carnelian Bay and Sawtooth Ridge areas, approximately 1 mile to 1.5 miles from the new 625 Line. Because trees will be removed as part of the USFS forest thinning activities, the removal of trees to establish a new transmission line ROW could result in a cumulative visual impact. However, thinning practices will mostly affect the smaller trees and accumulated, lower woody vegetation near the forest floor. There will be minimal thinning of larger tree stands that might be visible from a distance. Therefore, cumulative visual effects within the project viewshed are expected to be minimal and less than significant.

Air Quality

Temporary

A cumulative impact to air quality would occur if there was a cumulatively considerable adverse contribution to the overall Lake Tahoe and Mountain Counties air basins' air quality. The project area is currently designated as being in attainment with the NO_x state and federal ambient air quality standards; however, portions of this area are designated as nonattainment for ozone (O₃).

The project's peak daily NO_x (an ozone precursor) emissions are expected to exceed the significance thresholds set by the Placer County Air Pollution Control District (PCAPCD) due to the construction-related NO_x emissions from the operation of off-road equipment during ground-clearing and construction activities, as well as the operation of on-road vehicles used to deliver

materials and construction personnel to and from the project site. These emissions will result in a temporary potentially significant air quality impact. In addition to the 625 and 650 Line Upgrade Project, the four projects that are most likely to impact air quality as a result of NO_x emissions are the Kings Beach Commercial Core Improvement Project, the Joerger Ranch Specific Plan, Sena@Squaw, and Northstar Highlands Phase II. As shown in Table 4.17-1: Planned and Proposed Projects Within 5 Miles, these projects and the 625 and 650 Line Upgrade Project may be constructed simultaneously. The cumulative effect of combining the potential emissions from these five projects could result in a temporary (but potentially significant) cumulative air quality impact in the project area during construction.

Per California Air Resources Board standards, the Lake Tahoe Air Basin is out of attainment for inhalable particulate matter (PM₁₀). The 625 and 650 Line Upgrade Project, as well as other projects in the north Lake Tahoe area, will contribute to increased PM₁₀ levels as a result of ground-clearing activities and heavy-equipment use during construction. Non-attainment of the standard for PM₁₀ in the Lake Tahoe Air Basin is due specifically to dramatic spikes in PM₁₀ levels that occur during stagnant air periods in the winter (primarily in February). The rest of the year, PM₁₀ levels are notably low. The air basin currently violates the State 24-hour PM₁₀ standard on certain days in the winter (thus the area's PM₁₀ levels are in nonattainment per CARB standards), but does not violate the annual average standard. Because heavy vehicles and construction equipment—the primary source of PM₁₀ emissions—will be used year-round, but primarily in the summer on projects in the cumulative scenario, and only in summer and fall on the 625 and 650 Line Upgrade Project, the impact to air quality in the form of increased PM₁₀ levels will not be cumulatively considerable. Because the project's construction-related PM₁₀ emissions will occur only in the summer and fall, they are not expected to contribute to a considerable cumulative exceedance of CARB summer 24-hour PM₁₀ levels in the Lake Tahoe Air Basin; therefore, the cumulative impact will be less than significant.

Greenhouse gas (GHG) emissions will also result from the construction of the project and other foreseeable projects in the area. The vehicles and heavy equipment used during construction will be the primary sources of these emissions. While these emissions have the potential to contribute to a cumulative increase in GHG, the emissions during project construction will be negligible when compared to the existing baseline GHG emissions in the area. Furthermore, adherence to the standards and requirements of the PCAPCD, Northern Sierra Air Quality Management District, and TRPA will ensure that potential cumulative impacts are minimized. As a result, cumulative impacts are expected to be less than significant.

Permanent

Upon completion, all of the proposed residential and commercial development projects in the area will contribute to GHG emissions as a result of their general use and operation, and as a result of vehicle travel to and from the constructed projects. During the operational phase, the 625 and 650 Line Upgrade Project may contribute to GHG accumulation by emitting carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorinated carbon, and sulfur hexafluoride (SF₆). However, operational emissions from the project will be 91.4 metric tons of CO₂ equivalent (MTCO₂E), which is well below the CARB interim significance threshold of 7,000 MTCO₂E per year from non-transportation-related sources. As a result, the project's

contribution to permanent air quality impacts as a result of GHG will be minimal and will not result in a significant cumulative impact when combined with other projects in the area.

Biological Resources

Temporary

In the cumulative impact scenario, most of the temporary impacts to sensitive biological resources as a result of projects in the area will be avoided or minimized during construction through permit requirements and regulatory agency protocols. The other proposed projects will all be subject to the same permitting requirements under the California Endangered Species Act (CESA) and CEQA, which are intended to minimize impacts to species, both at the project level and in a regional context. In addition, the project's contribution to a significant cumulative effect will be minimized with the implementation of extensive applicant proposed measures (APMs) aimed at reducing impacts to biological resources.

Permanent

Of the projects in the cumulative scenario, the majority of them are located in previously developed areas. However, there are several developments proposed in areas that are currently undeveloped and could potentially contain habitat, including Sena@Squaw, the Northstar Overall Mountain Master Plan, and Northstar Highlands II. While these project sites have been designated for development by their respective regulatory jurisdiction, their development will result in the loss of forested/undeveloped land and associated habitat.

The loss of habitat due to the implementation of development projects in the area could be considered a permanent cumulative impact when considered in conjunction with the 625 and 650 Line Upgrade Project because the upgrade project will involve significant tree clearing for the transmission line ROW (particularly for the new 625 Line). However, the required tree clearing for the new line will be mitigated by the ROW occupied by the current 625 Line to be removed, in that the poles will be removed, and the former ROW will be abandoned and allowed to revegetate naturally. There is only a small amount of additional ROW—approximately 80 acres—that will require permanent clearing as a part of the project, when compared to the existing conditions.

The Tahoe National Forest includes 800,000 acres of public land interspersed with an additional 400,000 acres of private land, and the Lake Tahoe Basin Management Unit includes 191,100 acres of land. The implementation of all proposed development projects in north Lake Tahoe will result in the loss of a relatively small amount of marginal habitat. This habitat is situated on land already designated for development and surrounded by urban uses. The total loss of undeveloped or forested land will be less than 200 acres total for all cumulative developments, representing a 0.017 percent loss of forested land. The proposed developments will be required to mitigate for site-specific impacts to biological resources consistent with CEQA requirements. Cumulative significant impacts to biological resources are not likely because the cumulative change will not be considerable when compared to the overall size and abundance of forested land in the north Lake Tahoe area. Further, the project's contribution to this will be minor because the new 625 Line ROW will be located adjacent to a paved roadway, which provides lower quality habitat than the existing line, and all of the other project components are located in existing ROWs or

substation sites. Therefore, the project's contribution to a cumulative impact will be less than significant.

The TRPA Regional Plan contains a policy requiring that all proposed actions consider the cumulative impact of vegetation removal with respect to plant diversity and abundance, wildlife habitat and movement, soil productivity and stability, and stormwater quality and quantity. TRPA policies apply only to projects within their jurisdiction (e.g., the 625 Line and the last 3 miles of the 650 Line). Cumulative projects in the TRPA jurisdictional area affecting plant diversity, habitat, soils productivity, and water quality and quantity include the USFS forest thinning projects and the proposed NTPUD water tanks. All other development projects are not a part of the cumulative analysis scenario because their proposed locations are on previously developed parcels or on parcels that do not contain forest or wildlife habitat.

The USFS forest thinning projects are being implemented to improve the forest health, plant diversity, and soil stability. There will be no adverse cumulative impact from these projects combined. The proposed NTPUD water tanks are being placed in Kings Beach at the boundary between developed, urban areas and forested areas. The incidence of wildlife habitat or movement corridors at the edge of urban areas is expected to be low. The water tanks will be located on relatively flat parcels; therefore, soil instability or a significant increase in the quantity or quality of stormwater runoff is not likely to be an issue. Therefore, there will be no cumulative effect under the TRPA Regional Plan policy.

Cultural Resources

Cumulative impacts to cultural resources could occur as a result of increased ground-disturbing activities in previously undisturbed areas by multiple projects. The majority of the existing and proposed projects are located in previously disturbed areas and/or do not include any ground-disturbing work. However, projects involving significant new ground disturbance, such as the Joerger Ranch Specific Plan, Sena@Squaw, Northstar Overall Mountain Master Plan, and Northstar Highlands Phase II, have the potential to cause a cumulative impact to cultural resources when combined with the proposed project. However, every development project proposed within the jurisdiction of Placer County, the TRPA, or the Town of Truckee is required to undergo a CEQA review process, which requires that cultural impacts be mitigated to the less-than-significant level.

The Carnelian Fuels Reduction and Healthy Forest Program and the East Fork Thinning Project are USFS-sponsored projects that are proposed within USFS-managed land. Due to federal agency involvement, these projects are required to comply with Section 106 of the National Historic Preservation Act (NHPA), which requires that impacts to potentially significant cultural resources be avoided or mitigated.

The majority of the project will be constructed within existing, previously disturbed ROWs, and, with the implementation of the APMs, is not anticipated to impact any significant cultural resources. The project is unlikely to impact the same areas or similar cultural resources as other developments in the cumulative scenario because the projects are separated by a distance of several miles and significant geographic features. The majority of the proposed development will occur in previously developed, urban areas located near the origin and termination points of the

proposed transmission lines. In addition, proposed APMs require that known cultural resource sites be avoided, or if sites cannot be avoided, detailed testing and data recovery will be conducted. Because all of the developments proposed in the project area will be required to implement appropriate measures to protect cultural resources and because the project is not expected to have any impacts, if any cumulative impacts were to occur, they are expected to be less than significant.

Geology and Soils

Potential temporary cumulative impacts that may occur as a result of construction of the project in conjunction with other existing and proposed projects include soil disturbance from grading, and excavation activities that may cause erosion and sedimentation. All of the projects that are scheduled during the same timeframe will involve soil disturbance. However, the potential for soil erosion and sedimentation will be minimized through the implementation of Storm Water Pollution Prevention Plans, which are required for all projects that disturb 1 or more acres of soil.

Hazards and Hazardous Materials

Temporary

The cumulative temporary impacts that may occur as a result of construction of the project in conjunction with other planned and future projects include exposure to hazardous materials, increased fire potential, and physical hazards. Because all of the projects require construction equipment, they all have the potential to cause temporary impacts from accidental releases of diesel and gasoline fuel, hydraulic fluids, and other hazardous liquids. While this potential hazard exists during the construction phase for all projects, it would be very unlikely for a spill to occur in the same immediate vicinity of the project due to varying construction schedules and the distance between projects. Multiple spills at multiple sites are even less likely in the cumulative scenario. Furthermore, SPPCo and the project contractor will adhere to applicable regulations regarding spill clean-up and disposal. As a result, cumulative impacts are not expected to be significant.

The 625 and 650 Line Upgrade Project and the USFS forest thinning projects are located in moderate to very high fire severity zones. Construction equipment and activities could increase the potential for fire, predominantly during initial clearing activities when equipment may come in contact with dry vegetation. However, the USFS is well trained in fire prevention and will implement appropriate procedures throughout their forest-thinning activities. Similarly, SPPCo will implement precautionary measures during project construction to reduce the potential for initiating a fire. As a result, the cumulative potential for fire may be temporarily elevated for a short period of time during clearing activities, but is not expected to be significant.

Permanent

Potential permanent impacts related to hazardous materials may also result from the project in combination with the underground gasoline storage tanks that will be located at the Kings Beach Gas Station. The Kings Beach Substation, which is approximately 1.1 miles from the Kings Beach Gas Station, will require mineral oil for the transformer banks and a minimal amount of fuel as part of everyday operation. However, these facilities are a sufficient distance from each other and will be operated utilizing industry standards for the storage of these materials. Further,

both of these facilities are existing and will be upgraded as a result of the respective projects. The gasoline tanks are being replaced at the Kings Beach Gas Station and the transformers at the Kings Beach Substation will be new. The new gasoline storage tanks and new transformers will replace the existing, ageing equipment, and as a result, the potential for spills and leaks will be reduced. Further, SPPCo will implement Spill Prevention Control and Countermeasure Plans for each of their substations. As a result, no cumulative impact is expected.

As previously mentioned, the project will result in permanent project components being placed in moderate to very high fire severity zones. However, vegetation clearing for the ROW and vegetation management and fuel reduction activities conducted by the USFS will reduce the threat of fire in the area. The majority of the operation-related work will be performed at the project facilities in the winter, when the fire hazard level is low. In addition, the poles will be constructed of steel rather than wood, further reducing the potential for the line to be compromised by a fire. Therefore, a positive permanent cumulative impact to fire threat will result from the projects.

A potential permanent cumulative hazard to air traffic could also result from the construction of the project in conjunction with other developments near the Truckee-Tahoe Airport. There are eight projects in Truckee that are within 2 miles of the airport. In addition, the airport is located approximately 1 mile from the 650 Line and 0.7 mile from the 132 Line. However, all projects will be required to comply with all applicable Federal Aviation Administration regulations and the Truckee-Tahoe Airport Land Use Compatibility Plan. Compliance with these existing regulations will ensure that the various projects in the area do not result in a safety hazard. In addition, the 132 and 650 lines are existing facilities and do not currently impact flight operations at the airport; therefore, the upgrade of the poles and lines in this area are not anticipated to contribute to a significant cumulative air-traffic impact. The 625 Line is located approximately 4.4 miles from the Truckee-Tahoe Airport. Due to its distance, it is not expected to contribute to air traffic impacts.

Hydrology and Water Quality

Temporary

Cumulative impacts to hydrology and/or water quality have the potential to result from increases in local water use and alterations to the existing and natural drainage patterns of the landscape. All of the foreseeable developments, including the 625 and 650 Line Upgrade Project, will require the use of water to meet construction needs. This could potentially produce a temporary cumulative impact to the water supply. These impacts are not expected to be significant due to the available volume of water in the area and because several of the projects will access water from different municipal water suppliers and sources at different times.

Potential temporary cumulative impacts to water quality may occur as a result of construction of the project in conjunction with other existing and proposed projects in the cumulative scenario. All of the development projects in the cumulative scenario involve soil disturbance from grading, clearing, or excavation activities. These activities may cause erosion and sedimentation, and thus degrade water quality. However, the potential for soil erosion and sedimentation will be minimized through the implementation of Stormwater Pollution Prevention Plans (SWPPPs), which are required for all projects that disturb 1 or more acre of soil. As a result of the

implementation of the SWPPPs, the cumulative impact to stormwater quality is expected to be less than significant.

Temporary cumulative impacts to wetlands could occur as a result of the 625 and 650 Line Upgrade Project in combination with the Joerger Ranch Project. However, construction activities for these projects are not expected to occur within wetlands at the same time, given that the Joerger Ranch Project is on hold. Further, SPPCo plans to conduct work during the dry season to minimize impacts to the wetlands. As a result, a cumulative impact is not anticipated.

Permanent

Throughout the Lake Tahoe Basin, it is obligatory that projects meet stormwater quality requirements after construction to ensure that water pollutants are reduced to the maximum extent practicable. These water quality requirements ensure that all projects result in less-than-significant impacts. In addition, several projects involve the redevelopment of infill parcels. The 625 and 650 Line Upgrade Project will not alter natural drainage channels or permanently modify the existing stormwater drainage systems because all existing ground contours will be restored following construction, with the exception of the existing substation sites. As a condition of approval by the jurisdictional agency, projects must install stormwater treatment measures that will likely increase the quality and lessen the quantity of runoff from the redeveloped properties during and after construction. In addition, the TRPA and USFS have several anticipated erosion control and stormwater quality improvement projects that will increase the water quality of the area. As a result, there will be a less-than-significant cumulative impact on water quality.

Wetlands could be potentially impacted in the Martis Valley by portions of the 650 Line, the Northstar Staging Area, and by the proposed Joerger Ranch development in Truckee. However, the permanent wetland impacts of the 650 Line and Northstar Staging Area are expected to be minimal because the project involves the replacement of existing poles, and the amount of ROW affected will not increase from the existing situation. In addition, all projects in the cumulative scenario affecting wetlands will be required to mitigate in accordance with the U.S. Army Corps of Engineers “no net loss” policy. Therefore, permanent cumulative impacts to wetlands will be less than significant.

Noise

All foreseeable developments, including the 625 and 650 Line Upgrade Project, are expected to have cumulative temporary noise-related impacts during times of overlapping construction. However, the various cumulative development projects and the 625 and 650 Line Upgrade Project are all located a sufficient distance from each other. Therefore, noise levels during construction are unlikely to be concentrated and cause a significant impact. In addition, the other development projects are primarily located in urban, developed areas where ambient noise levels are naturally higher, whereas significant portions of the 625 and 650 Line Upgrade Project are located in undeveloped areas where noise levels are unlikely cause an impact. Because of the separation and location of the projects in the cumulative scenario, the temporary cumulative impact is expected to be less than significant.

Public Services

An emergency could arise as a result of project construction that would require fire or police protection or emergency services. Should there be multiple emergencies at several construction sites, there could be a cumulative impact on local public services. However, the probability of a single emergency incident is low, and the probability of simultaneous emergencies at multiple construction sites is even lower. In addition, the project spans several jurisdictions and there are many emergency service providers in the cumulative impact analysis area. It is not expected that there will be a significant cumulative impact that would tax the existing emergency services beyond their current capabilities.

Highway patrol and police services may be required to assist with traffic control on multiple large construction projects in the area, thus cumulatively impacting police services. However, highway patrol and police assistance would be limited to short durations of time and it is unlikely that assistance would be required on more than one project at the same time. Highway patrol and police assistance is not expected to significantly impact current capacities because of the limited duration and timeframe that services might be required. In addition, projects are generally required to provide their own staff to manage traffic during construction. As a result, cumulative impacts will be less than significant.

Recreation

Because planned development is concentrated in urban, developed areas in the north Lake Tahoe area, only USFS-sponsored projects have the potential to generate a cumulative impact to recreational opportunities when combined with the project. USFS forest management practices occur on a regular basis and include trail maintenance, fuel reduction and thinning to prevent wildfires, and erosion control projects. The 625 and 650 Line Upgrade Project will require a Special Use Authorization from the USFS for work in the Tahoe National Forest and Lake Tahoe Basin Management Unit, and coordination with the USFS to schedule activities to minimize impacts to recreation. In addition, access to recreational amenities and facilities will only be restricted for a short duration during the construction of any of these projects, including the 625 and 650 Line Upgrade Project. Furthermore, there are ample alternative recreational facilities and several hundred miles of trails in the Lake Tahoe Basin and Tahoe National Forest that can be utilized during temporary closures. Therefore, cumulative impacts are expected to be less than significant.

Transportation and Traffic

During the construction phase, traffic impacts will occur from all area projects with overlapping construction timeframes. As discussed in Section 4.15 Transportation and Traffic, impacts due to the construction of the proposed project will be less than significant. Because construction of the transmission lines will occur in a linear fashion, construction-related traffic will occur in different locations. This will result in limited amounts of equipment and trips in any one given area. As a result, construction of the project will not contribute appreciably to a cumulative impact on traffic and transportation in the project area.

In addition, the developments in the cumulative scenario are spread out in three primary areas—Truckee, Kings Beach, and Tahoe City. Truckee development-related traffic will utilize

Highway 80 for construction and post-construction circulation. Kings Beach developments will utilize SR 267 and North Lake Boulevard. The Tahoe City development-related traffic will likely utilize SR 89 (River Road) during construction and post-construction. No other developments are in close enough proximity to the project to result in a cumulative traffic impact as a result of shared roads. Because of the staggered construction timelines for developments in the cumulative scenario and because the project-related traffic will be dispersed over a number of roadways, cumulative impacts to traffic will be less than significant.

Utilities and Service Systems

Cumulative impacts to utilities or service systems have the potential to occur if multiple projects have a combined impact on local utility services or infrastructure. Post-construction, all projects will be required to treat stormwater on site to the maximum extent practicable to comply with regional water quality requirements. The project will result in a minimal increase in impervious surfaces. All stormwater will be infiltrated on site. No attachment to municipal stormwater systems is proposed as part of the project and it will not contribute a considerable amount of additional stormwater to drainage pipes or treatment facilities. Therefore, the cumulative contribution of the project to an impact will be less than significant.

Local area landfills could potentially be impacted due to the increased cumulative need for disposal of construction debris and post-construction operational debris. It is estimated that the project will generate 25,000 pounds of construction waste. The project will have a minimal contribution of post-construction related debris as the project components are unmanned, and operation and maintenance-related waste production is not expected to change from existing conditions. The Lockwood Landfill located outside of Sparks, Nevada will be utilized to dispose of project waste materials. The landfill has anticipated capacity until 2035, with the capacity estimate accounting for yearly growth in population and associated increased waste generation from cumulative area projects. Therefore, cumulative impacts to landfill access and capacity will be less than significant.

Increased electrical demand will occur as a result of cumulative developments in the project area. However, the project will have a positive impact to the existing electric system by providing more reliable power to area residents and businesses. As a result, the project will not result in an adverse cumulative impact to utilities.

4.17.7 Conclusion

While the project will contribute to certain cumulative impacts with the level of development activity in its vicinity, its contribution to these impacts is generally anticipated to be minimal. The only exception to this is air quality, where a potentially significant temporary impact is likely to occur as a result of cumulative NO_x emissions from the operation of vehicles and equipment during construction. While APM-AIR-01 through APM-AIR-15 will be implemented to reduce some of these air quality impacts to the less-than-significant level, some construction-related impacts will still be potentially significant.

A positive cumulative impact is expected in the area of utilities. For the other resource areas (aesthetics, biological resources, cultural resources, geology, soils and seismicity, hazards and hazardous materials, hydrology and water quality, noise, public services, recreation, and

transportation and traffic), a potentially adverse cumulative impact may result. However, it is anticipated that the other projects within the vicinity will be required to implement avoidance and minimization measures similar to SPPCo's APMs and permit conditions in accordance with the CEQA, CESA, and NHPA. These measures will minimize environmental impacts, thereby minimizing the overall cumulative effect. As a result, impacts to all resource areas except air quality are expected to be less than significant.

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