# 7 RESOURCE MANAGEMENT

7.1 RESOURCE MANAGEMENT CONCEPT AND GOALS

7.2 AESTHETICS AND SCENIC RESOURCES

7.3 CULTURAL RESOURCES

7.4 SQUAW CREEK CORRIDOR

7.5 BIOLOGICAL RESOURCES

7.6 CLIMATE CHANGE INITIATIVES

7.7 AIR QUALITY

7.8 SNOW STORAGE

7.9 AVALANCHE HAZARDS

# 7 RESOURCE MANAGEMENT

## 7.1 RESOURCE MANAGEMENT CONCEPT AND GOALS

The Specific Plan seeks to protect and enhance the natural resources of the Olympic Valley through careful site design and management of the built environment. The Specific Plan concentrates development in areas that have been developed and/or disturbed in the past, thereby minimizing the conversion of natural areas to developed uses. Landscaping and open space corridors are integrated with the surrounding natural environment, with an emphasis on the relationship between the Village and the mountain. The Squaw Creek corridor will be widened and rezoned Conservation Preserve to protect the creek from encroaching development and to provide the width necessary to allow enhancement of the creek's natural function.

Further, the Specific Plan protects and manages surface and groundwater quality through aggressive use of Low Impact Development (LID) measures and Best Management Practice (BMPs). The mix of land uses within the Village would minimize the need for residents and visitors to travel outside of the Olympic Valley during their stays. By reducing reliance on vehicles, the Specific Plan would minimize air pollutants and greenhouse gases. Further, the Specific Plan encourages a variety of "green" building measures, which are intended to minimize water demand and energy use.

Goal RM-1: Preserve and enhance important natural resources within and near the Plan Area and the East Parcel through conservation, enhancement, and where removal or degradation of such resources cannot be avoided, mitigation.

Goal RM-2: Reduce reliance on non-renewable energy and the emission of air pollutants and greenhouse gases.

Goal RM-3: Strive to meet and/or exceed the standards set for energy efficiency and reduction of greenhouse gases by programs like LEED certification.

Goal RM-4: Design and construct building and outdoor areas in a manner that protects people from avalanche hazards.

## 7.2 AESTHETICS AND SCENIC RESOURCES

Designated as a scenic roadway, Squaw Valley Road offers spectacular views of a high Sierra landscape. As Squaw Valley Road approaches the Plan Area from the east, it offers a dramatic vista into the open alpine meadow environment of the Olympic Valley and the surrounding peaks beyond. The summits of Snow King, KT-22, Squaw Peak and the rocky cliff topped by the Squaw Valley aerial

tram (Cable Car) frame the western end of the Valley, with the Village and the adjacent Specific Plan areas situated at the base of this mountain panorama. East of the Village, Squaw Creek meanders through the Valley floor en route to the Truckee River.

Development on the Olympic Valley floor is currently concentrated in the existing Village and parking areas to the west, with the open meadow area to the east, and the Resort at Squaw Creek at the southeastern edge. Outside of the immediate Village vicinity, residential and lodging development has been kept to the forested hillsides at the edges of the Valley, preserving the open east-west viewshed along the Valley floor. The Specific Plan sustains this development pattern in its zoning and land use plans, assigning almost all development to areas that have been previously developed or disturbed. The Specific Plan outlines a phased expansion of the Village resort core to infill portions of the current parking areas in order to create a pedestrian-oriented alpine village. This Specific Plan sets development against the thousands of feet of mountain scenery rising behind it, with the taller accent buildings and its massing designed to orient views from the eastern end of the Valley and from within the resort area itself.

The Plan Area is immediately adjacent to the mountain-themed residential lodging buildings, functionally-designed lift buildings, and wood frame alpine-styled skier services buildings. The Design Guidelines component of the Specific Plan describes an architectural style rooted in western mountain building traditions and materials. This style is compatible with the wood-frame buildings of the original ski resort and integrates the mountain village style of the Intrawest buildings, fostering a more consistent Village design vocabulary.

Goal SR-1: Design and implement development of distinctive architectural character and quality that respects the history of the Olympic Valley, the legacy of the 1960 Winter Olympics and the natural and cultural setting.

Goal SR-2: Protect views of the mountains and other scenic resources from public roads, recreational areas and surrounding residences.

Policy SR-1: Provide visual access to the principal views of the mountain peaks and hillsides to reinforce the connection of the Village to the mountain environment.

Policy SR-2: Protect and enhance scenic corridors through such means as sign control, undergrounding utilities, scenic setbacks, and open space easements.

Policy SR-3: Provide for landscaping and/or landscaped mounding where desirable to maintain scenic qualities and screen unsightly views.

Policy SR-4: Encourage the development of trails and bike paths along scenic routes.

Policy SR-5: New lighting shall be designed to limit glare and light pollution.

# 7.3 CULTURAL RESOURCES

## 7.3.1 PREHISTORY

The Plan Area falls within the center of the Washoe people territory, and once provided fishing and hunting grounds for this Native American tribe. Prehistoric sites have been identified in the Olympic Valley, however no such sites appear to exist within the Plan Area. A field survey of all undeveloped parcels within the Plan Area identified one prehistoric artifact, however it did not meet the criteria of significance as defined by the National Register of Historic Places. As with any area that had been subject to prehistoric habitation and activity, there is always the possibility that subsurface resources are present, and could be disturbed during construction activities.

Policy CR-1: If cultural resources (prehistoric or historic) are revealed during project construction, work will stop in the immediate vicinity and a qualified archaeologist and/or Native American consultant (if the find is prehistoric) shall be contacted to assess the nature and significance of the find. In addition, the Planning Services Division and Department of Museums will be notified concurrent with the retention of a qualified archeologist.

Policy CR-2 If human remains are discovered, all work shall stop immediately and the County coroner shall be notified, consistent with State law. If the remains are found to be Native American, both the Native American Heritage Commission and members of the Washoe Tribe (or other identified descendants) must be notified to insure that proper treatment is given to the burial site.

## 7.3.2 HISTORY

The Olympic Valley was first settled by Europeans during the 1840s, and served as a short cut from Carson City to the mining camps in the Sierra foothills. In the 1860s, silver ore was discovered near the mouth of Squaw Creek, which resulted in the rapid but brief development of two towns within the Olympic Valley. Following the collapse of mining, dairy farming and ranching became the primary economic activities, as well as logging and winter recreation. Today, the Olympic Valley is best known as the site of the 1960 Winter Olympics.

Within the Plan Area, little remains of the Olympic Valley's history. Most of the buildings and facilities that were constructed for the 1960 Winter Olympics have been removed or altered. Two buildings retain enough integrity to be considered historically significant - the Nevada Spectators' Center and the Athletes' Center (now the Olympic Village Lodge). These buildings are located in key areas proposed for development, so they may need to be removed.

The Specific Plan celebrates the legacy and the spirit of the 1960 Winter Olympics by orienting viewsheds toward the mountains that were the key component of various Olympic sports, and by creating a resort that is respectful of that history in its design and implementation. In addition, the following policies will contribute toward an understanding of the history of the Olympic Valley.

Policy CR-3: If and/or when the Nevada Spectators' Center and/or Athletes' Center are demolished, significant architectural features and historic artifacts shall be salvaged and prominently displayed within the Village

as part of an interpretive exhibit, or made available to the appropriate historical society or museum dedicated to preservation and interpretation of data and information from the 1960 Winter Olympics.

Policy CR-4: Artifacts from the 1960 Winter Olympics that are discovered during project development shall be made available to the appropriate historical society or museum dedicated to preservation and interpretation of data and information from the 1960 Winter Olympics.

Policy CR-5: Activities that support the research and interpretation of the history of the Olympic Valley, particularly the 1960 Winter Olympics, shall be supported. Examples of such activities include:

- Support of interpretive programs developed by a local non-profit group, historical society, and/or museum with funding and/or relevant historical materials and/or artifacts; or
- Support of an Olympic Museum through dedication of physical space within the village, staff support and/or funding.

## 7.4 SQUAW CREEK CORRIDOR

Squaw Creek is an intermittent stream that originates in the rocky slopes north of the Plan Area and flows through the Plan Area east into the Truckee River. Most of the reach of Squaw Creek within the Plan Area is confined within a trapezoidal channel built by the Army Corps of Engineers in the 1950s in preparation for the 1960 Olympic Winter Games. Although Squaw Creek continues to provide some support for fisheries, birds, and other animal species, the channelization has degraded its value as a habitat. The channel has also altered the downstream portion of Squaw Creek as a result of sediment deposition and increased velocities. East of the Plan Area, it meanders through the meadow and a golf course.

The Specific Plan will improve conditions in Squaw Creek by providing a 150 to 200 foot wide corridor. No vertical structures shall be developed within the 100-year floodplain. Outside of the 100-year floodplain, facilities such as warming huts, restrooms, and/or structures that support the improvement of riparian functions, are permitted. Such functions could include groundwater recharge, sediment deposition, terrestrial, avian, and/or aquatic habitat, and flood protection. Principals of landscape architecture that reveals and interprets ecological phenomena (eco-revelatory design) will be incorporated into Conservation Preserve areas, and will include a Class 1 bike and walking trail along the corridor, as well as interpretive signage and viewing areas.

Prior to development of infrastructure associated with the ski resort and the 1960 Winter Olympics, historical channel functions in this area likely consisted of sediment deposition, active channel migration, and alluvial fan formation. Flood control channels are now in place to control these processes and protect property and infrastructure. As a result, sediment which was once deposited near the confluence at the western portion of the Plan Area is now transported downstream, with active deposition and associated channel migration at the mouth of constructed flood control

channels. Additionally, the Olympic Channel receives water and sediment from portions of the existing parking lot and from steeper areas to the south of the Plan Area, and transmits relatively high sediment loads directly into Squaw Creek.

To offset impacts associated with sediment deposition at the downstream end of flood control channels, as well as incoming sediment from the Olympic Channel, the protected area will be widest at the downstream (east) end of the Plan Area. The proposed width will allow for floodplain restoration, sediment deposition, and active sediment management/removal at the confluence of the Olympic Channel and Squaw Creek. The proposed Conservation Preserve and restored floodplain width are consistent with restoration alternatives identified and developed by the Friends of Squaw Creek and Placer County, and will be designed to include grade control structures and oxbow depression features for water retention, groundwater recharge, and the collection and management of coarse sediment.

Channel capacity will be increased in these areas, offsetting potential impacts to the 100-year floodplain. Floodplain wetlands will be created, enhancing functionality and acreage of wetlands in this portion of the site. They will help mitigate potential impacts to the wetlands and waters of the United States and State of California associated with implementation of the Specific Plan. The anticipated improvements to Squaw Creek are shown in Figures 7.1 through 7.4.

Policy SC-1: Squaw Creek and the adjacent riparian area shall be designated Village-Conservation Preserve. Activities within the corridor shall be limited to those that improve the creek and/or recreational amenities for celebration and public enjoyment of the restoration effort. In addition to measures designed to protect and enhance the creek and riparian corridor, minor improvements that have minimal impact, such as trails, shall be allowed within the corridor.

Policy SC-2: No buildings or structures over 400 square feet shall be constructed within the Squaw Creek riparian corridor, other than linear park and trail related facilities such as interpretive panels or kiosks, observation decks, restrooms, and picnic areas.

Policy SC-3: Roads, bridges, paths and other related facilities located within the riparian corridor shall not encroach on the creek channel, and shall be designed to minimize impacts on the creek habitat and stormwater capacity.

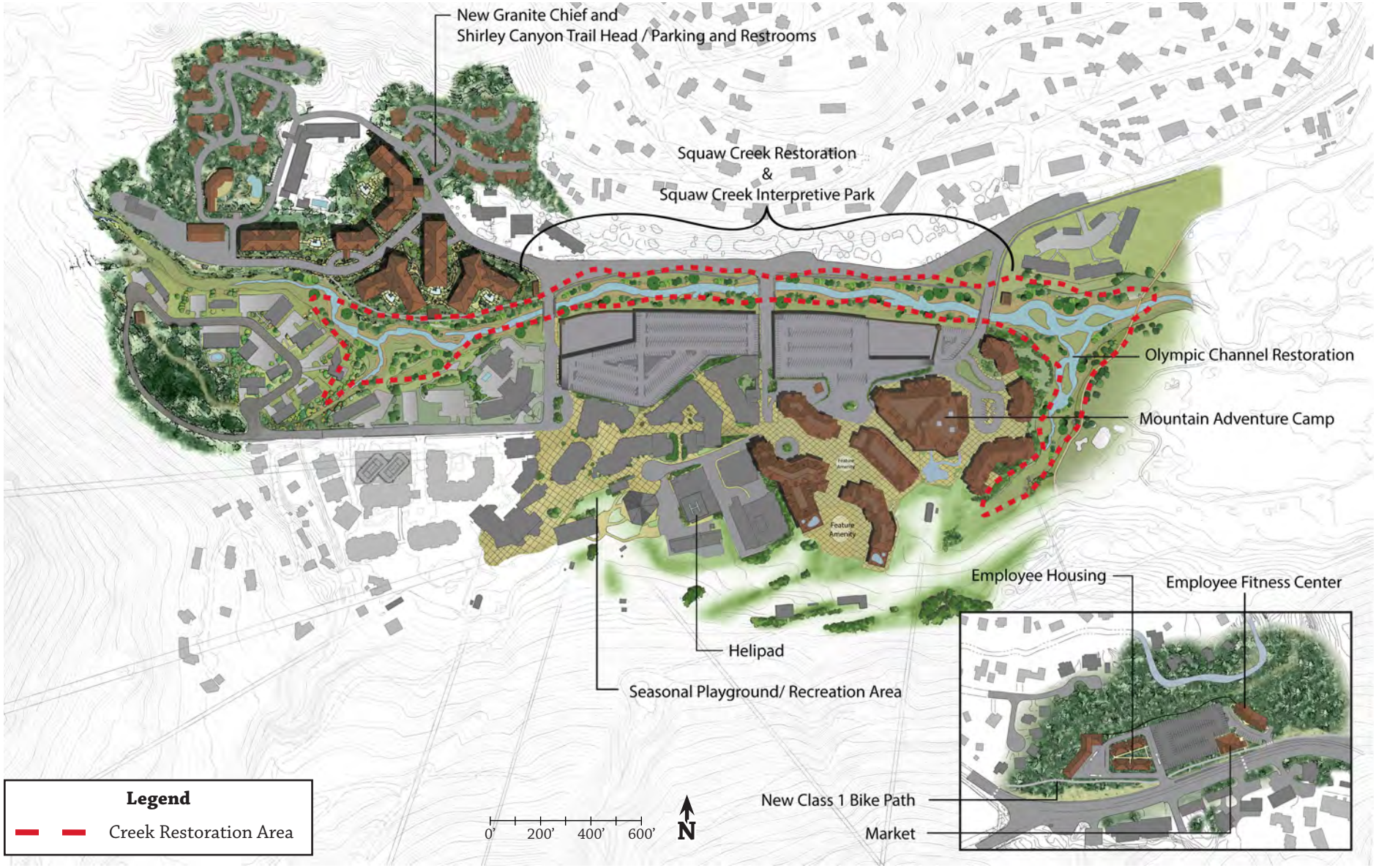
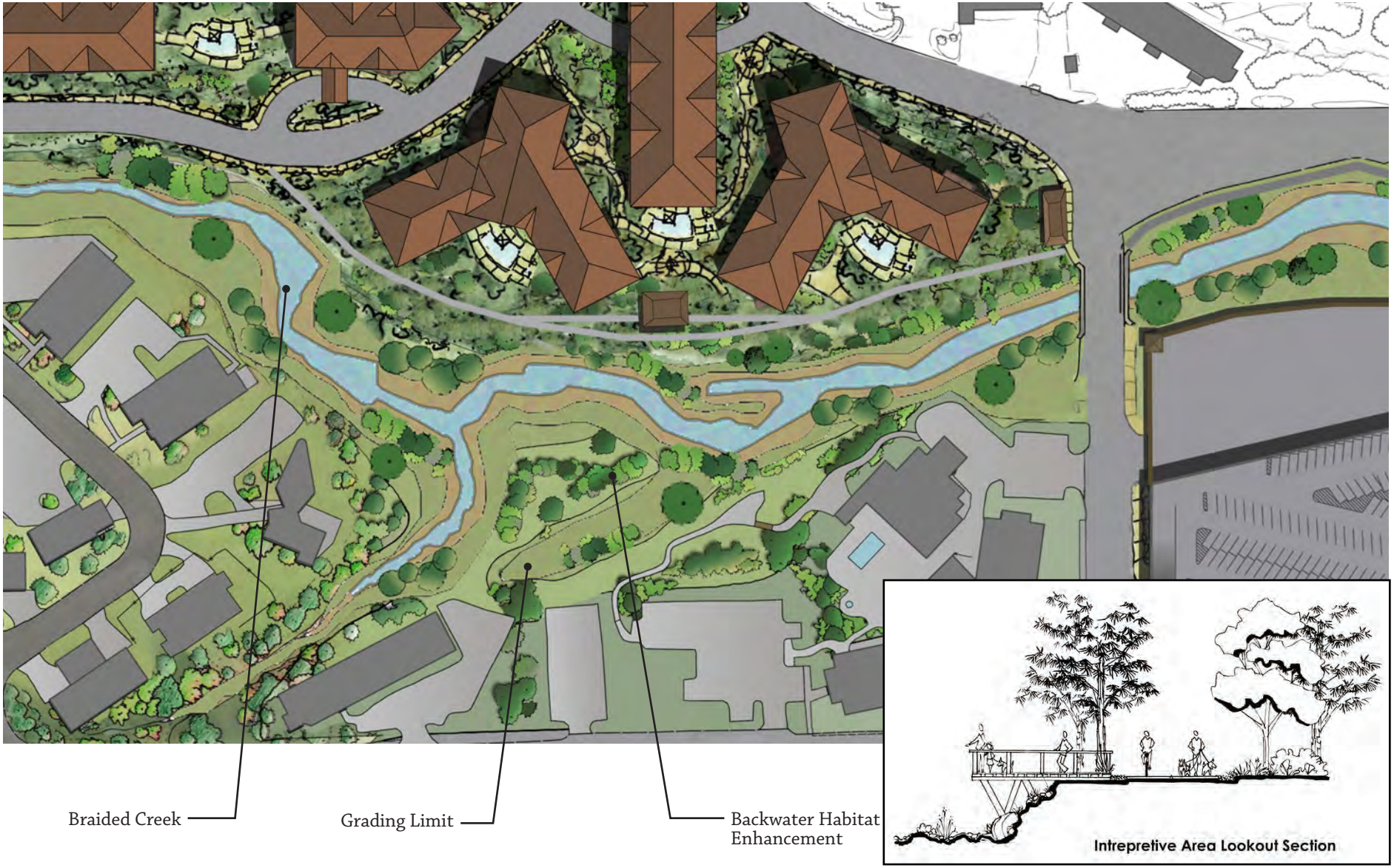



FIGURE 7.1– CREEK RESTORATION PLAN AREA

Note: Figures 7.1 to 7.4 depict plans for Squaw Creek corridor enhancements and an interactive trail system. The Illustrative Concept Plan depicts the most recent Squaw Creek Restoration design but is subject to change as the design progresses.




## FIGURE 7.2– WESTERN CONFLUENCE RESTORATION AREA

Note: Figures 7.1 to 7.4 depict plans for Squaw Creek corridor enhancements and an interactive trail system. The Illustrative Concept Plan depicts the most recent Squaw Creek Restoration design but is subject to change as the design progresses.

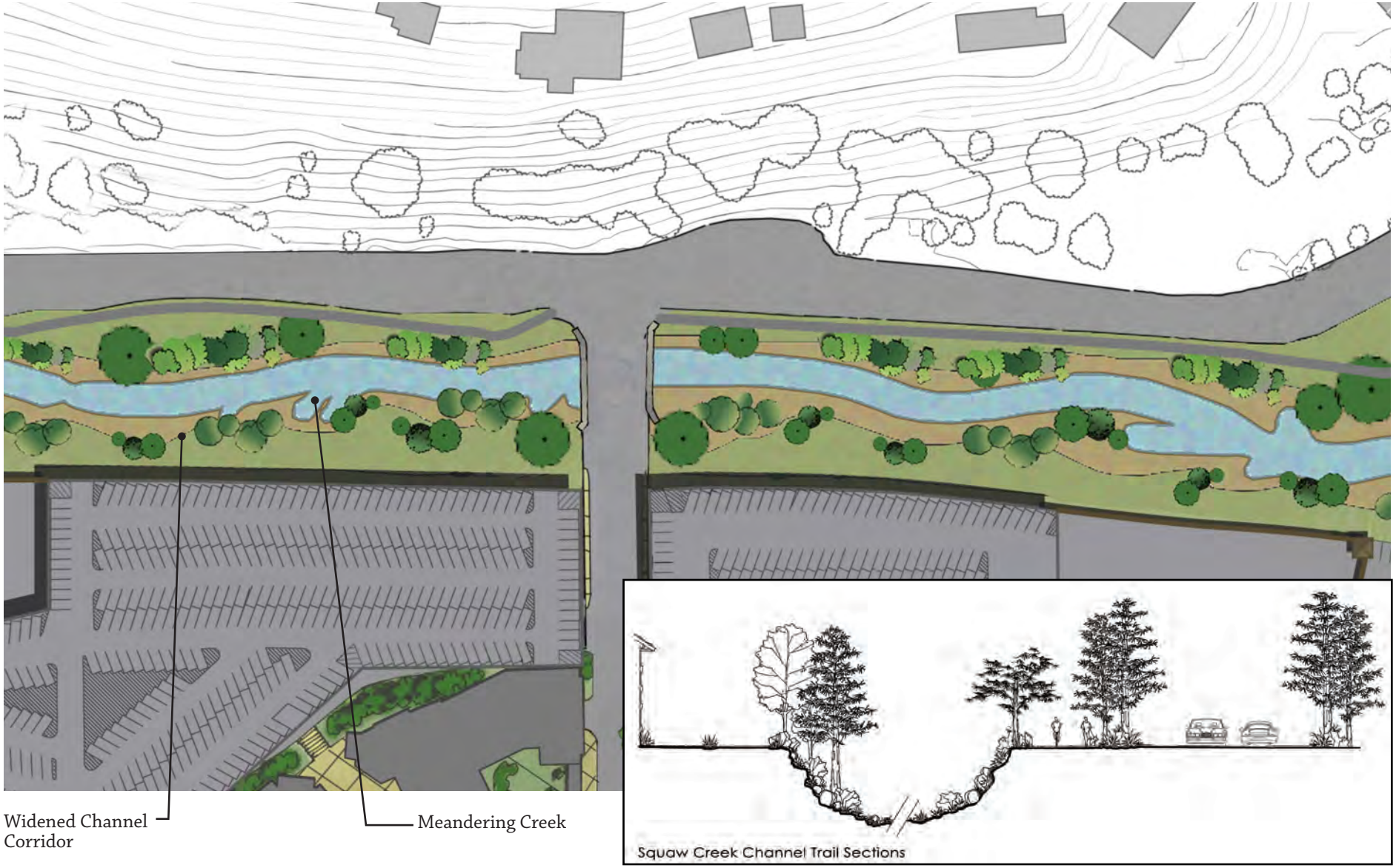
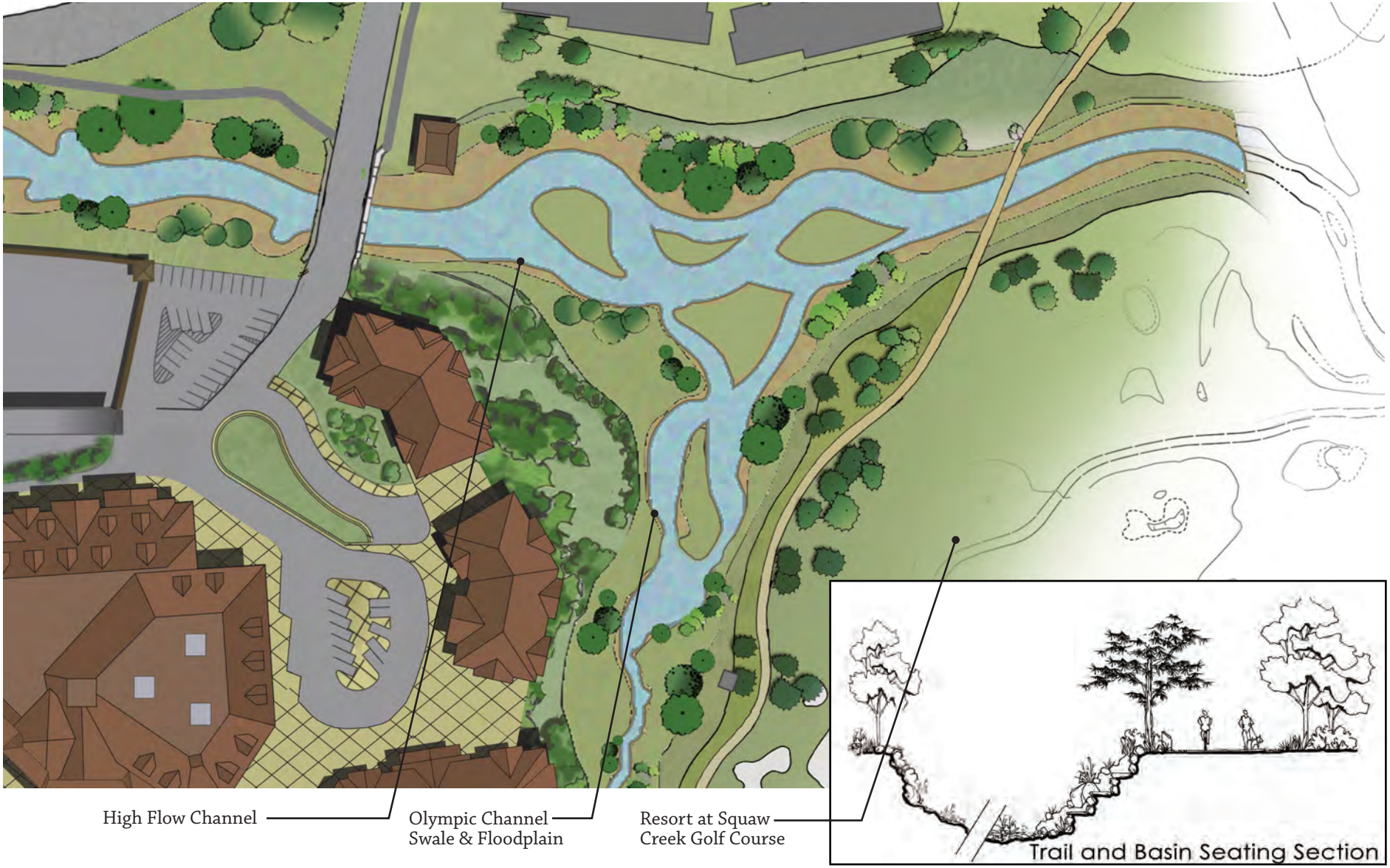



**FIGURE 7.3– TRAPEZOIDAL CHANNEL RESTORATION AREA**

Note: Figures 7.1 to 7.4 depict plans for Squaw Creek corridor enhancements and an interactive trail system. The Illustrative Concept Plan depicts the most recent Squaw Creek Restoration design but is subject to change as the design progresses.




## FIGURE 7.4– EASTERN CONFLUENCE RESTORATION AREA

Note: Figures 7.1 to 7.4 depict plans for Squaw Creek corridor enhancements and an interactive trail system. The Illustrative Concept Plan depicts the most recent Squaw Creek Restoration design but is subject to change as the design progresses.

## 7.5 BIOLOGICAL RESOURCES

The Specific Plan seeks to protect and enhance the natural resources of the Olympic Valley by concentrating development in areas that have been developed and/or disturbed in the past, integrating the surrounding environment into the project with landscaping and open space, aggressively protecting and managing water quality, minimizing the use of vehicles, and preserving and enhancing Squaw Creek and the surrounding riparian area.

Most of the Village area and the East Parcel has been disturbed in the past. The developed and disturbed areas provide limited habitat value. As shown in Figure 7.5– Biological Resources in the Plan Area, there are portions of the Plan Area that support biological habitat, primarily along the edges and in the northwest and western portions. Biological communities in the Plan Area are composed of mixed conifer forest, creek/riparian, and meadow. Approximately 10 acres are mixed conifer forest, located primarily in the western, northwestern, northern and southeastern edges of the Plan Area.

The East Parcel is also largely disturbed (approximately 3.8 acres of the 8.8 acre site), as shown in Figure 7.5. Habitat within the East Parcel includes creek/riparian, mixed conifer forest, willow scrub, and willow/alder-leaved coffeeberry.

### 7.5.1 WETLANDS

There are several types of wetlands that occur in the undeveloped portions of the Plan Area and the East Parcel, including Squaw Creek, seeps, a swale, wet meadow, and perennial, intermittent, and ephemeral drainages. In some cases, these wetlands are located in disturbed areas with minimal habitat value. See Figure 7.6 - Wetlands in Plan Area.

Policy WE-1: Development shall avoid wetlands located within the 100-year floodplain to the extent feasible.

Policy WE-2: To the extent feasible, wetlands shall be avoided, unless relocation and/or modification of the wetland would increase the functional value of the wetland and/or receiving waters.

Policy WE-3: When wetlands cannot be avoided, a mitigation plan shall be developed before site disturbance.

Policy WE-4: Relocation, reconstruction and other changes in wetlands shall be designed in consultation with the Lahontan Regional Water Quality Control Board and the Army Corps of Engineers, and shall meet all applicable state and federal regulations.

Policy WE-5: The drainage system shall be designed to enhance the habitat value and water quality along the southern and eastern edges of the Plan Area.

Policy WE-6: BMPs, LIDs, and other measures shall be employed to ensure that water quality is not degraded in Squaw Creek or preserved wetlands.

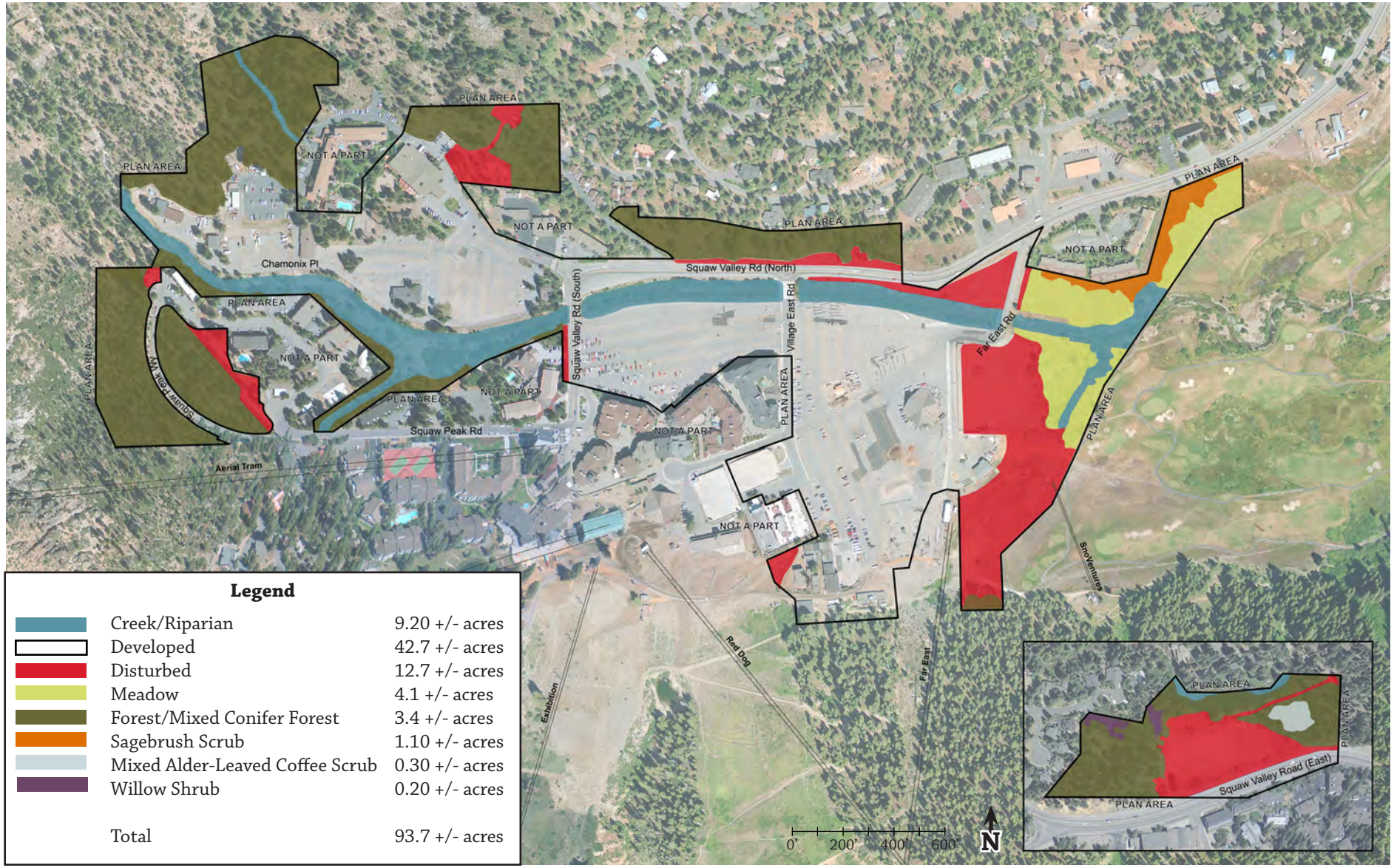



FIGURE 7.5– BIOLOGICAL RESOURCES IN THE PLAN AREA

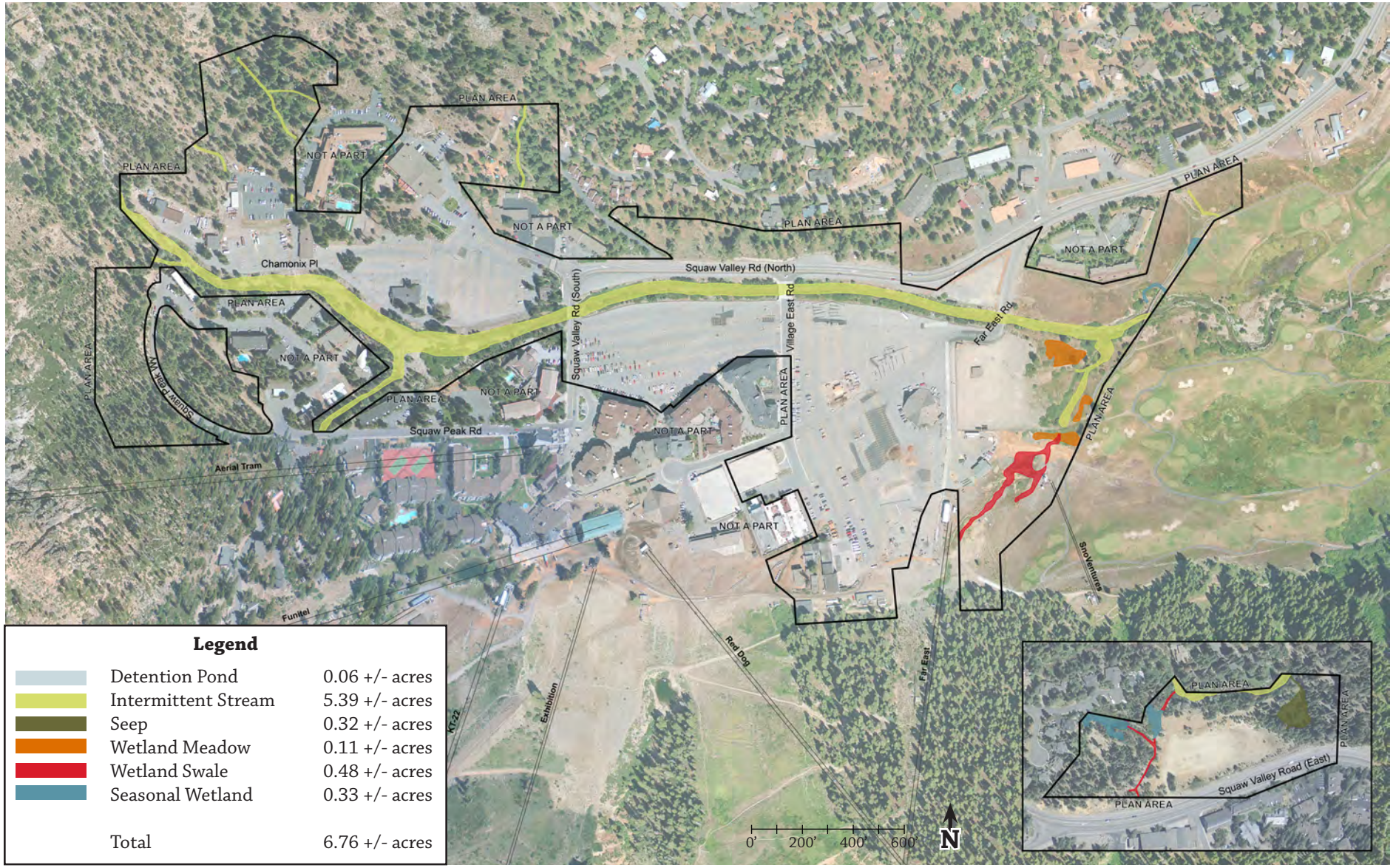



**FIGURE 7.6– WETLANDS IN PLAN AREA**

Footnotes: Tentative pending verification by the U.S. Army Corps of Engineers.

Please also see Section 6.4 which describes in detail strategies for protecting water quality within the Plan Area.

## 7.5.2 PLANTS AND WILDLIFE

The biological communities in the Plan Area provide habitat for several special-status species. There are several listed plant species that could occur in the conifer forest or riparian areas, including two federally-listed species—starved daisy and Donner Pass buckwheat. Squaw Creek provides habitat for several species, including three kinds of trout: brown, brook, and rainbow. The creek also has habitat that could support the Lahontan cutthroat trout, a federally-listed species recently reintroduced into Lake Tahoe, but it was not observed in Squaw Creek during aquatic surveys. Squaw Creek and an unnamed tributary also could support the Sierra Nevada yellow-legged frog.

Birds that might breed and/or forage in the Plan Area include yellow warbler, willow flycatcher, and northern goshawk. Two state-listed mammals, Sierra Nevada Beaver and Sierra Nevada snowshoe hare, may also occur within the Plan Area. At the time the Specific Plan was prepared, protocol surveys for these species had not been conducted. For the most part, such surveys are most appropriate shortly before construction commences, as these species are mobile, and may change their nesting sites year to year.

Protocol surveys were conducted for rare plants in 2013. No rare plants were identified in the Plan Area. One listed plant alder-leaved coffeeberry (Rhamnus alnifolia) was found within the eastern portion of the East Parcel.

The Specific Plan minimizes impacts on special-status species by concentrating the highest-impact activities, including dense development and public gathering spaces, in areas that are already developed and therefore not attractive to animal and plant species that are not urban tolerant. Further, a riparian corridor would be developed for the length of Squaw Creek and would provide native vegetation that would serve as nesting and foraging habitat for the yellow warbler and willow flycatcher. Over time, creek restoration and enhancement would improve habitats for fisheries.

Policy PW-1: Protocol surveys for special-status species shall be conducted prior to any disturbance of habitat areas (shown in Figure 7.5– Biological Resources in the Plan Area), and prior to removal of any trees during the active nesting season (February – September).

Policy PW-2: If special-status species are identified during pre-construction surveys, appropriate buffers and other protective measures shall be developed in consultation with the United States Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (DFW) and Placer County.

Policy PW-3: Protocol level surveys for protected birds shall be conducted prior to removal of any trees during the active nesting season (February through September). Construction and other activities shall be avoided in the vicinity of active nests and nursery sites, unless it can be determined in consultation with the appropriate agency (USFWS or DFW) that the activities would not disrupt the nesting species.

Policy PW-4: Impacts to sensitive and special status species shall be mitigated in accordance with State and Federal trustee agency requirements.

### 7.5.3 TREES

As indicated above there are approximately 10 acres of conifer forest within the Plan Area, which represent the densest concentration of native trees. There are also small stands of trees scattered throughout the developed portions of the Plan Area. An arborist report identified approximately 800 trees over 6 inches at breast height (dbh) within the Village areas planned for development. In addition, approximately 350 trees over 6 inches dbh were identified within the development portions of the East Parcel.

Policy TR-1: To the extent feasible, healthy trees shall be avoided.

Policy TR-2: Where healthy trees must be removed, each project shall compensate for the loss of trees through compliance with the County Tree Ordinance.

Policy TR-3: Each project that removes commercial-grade trees shall be responsible for preparation of a Timber Harvest Plan (THP), THP exemption, and/or compliance with a master THP if one is enforced. Preparation of a THP does not exempt tree removal from the County Tree Ordinance.

## 7.6 CLIMATE CHANGE INITIATIVES

As part of the vision for the Village at Squaw Valley, buildings are to be designed with a strong commitment to sustainable development. Building designs are encouraged, and sometimes required, to follow specific sustainable design initiatives as described below in an effort to reduce impacts on global climate change and increase the quality of life for visitors and guests of Squaw Valley. Refer to transportation policies detailed in Chapter 5 for efforts to reduce transportation-related greenhouse gas emissions.

The VSVSP is committed to achieving a high level of sustainability through design, construction techniques, selection of building materials and fixtures and smart landscaping design. The VSVSP uses “smart growth” principles in its design, particularly by creating an active pedestrian environment with corridors providing interior circulation and connections to the existing Village and surrounding mountain areas. The VSVSP requires use of Energy Star appliances, water-efficient fixtures and landscaping and other measures that will reduce water and energy use. Individual buildings will be designed and constructed to a level equivalent to LEED Silver and/or other comparable ratings. Where financially feasible, buildings will be designed and constructed at LEED Gold and Platinum levels (or other comparable designations), demonstrating the highest levels of sustainability.

#### ENERGY EFFICIENCY

Policy CC-1: All new and remodeled resort-residential, commercial, institutional, and civic construction is encouraged to exceed current Title 24 State energy-efficiency requirements by at least 15 percent.

Policy CC-2: All new resort-residential buildings and major renovations are encouraged to meet or exceed the guidelines for the California Energy Star Certified Homes Program or other equivalent programs.

- The Energy Star Certified Homes Program is a joint program of the United States Environmental Protection Agency and the Department of Energy. The program establishes criteria for energy efficiency for household products and labels energy efficient products with the Energy Star seal. Homes can be qualified as Energy Star homes as well if they meet efficiency standards.

- In California, Energy Star homes must use at least 15 percent less energy than Title 24 regulations, pass the California Energy Star Homes Quality Insulation Installation Thermal Bypass Checklist Procedures, have Energy Star windows, and have minimal duct leakage.

Policy CC-3: Resort-residential development of more than 6 units is encouraged to participate in the California Energy Commission's New Solar Homes Partnership (NSHP).

Policy CC-4: New construction of commercial buildings over 10,000 square feet in size is encouraged to incorporate renewable energy generation to provide at least 25% of the project's needs.

Policy CC-5: Incorporating on-site renewable energy production, including installation of photovoltaic cells or other solar options installed in appropriate sunlit locations, is encouraged. Small single-cell applications typical for use in landscape, pathway and plaza lighting are acceptable.

Policy CC-6: A building's orientation, massing, and fenestration shall be designed to reduce building energy requirements, by maximizing daylighting and/or controlling heat produced by sunlight, to the extent feasible given the building's location, including its relationship to courtyards and paths, other buildings and natural features. Daylighting shall not be maximized to the extent that it causes glare and/or electric lighting loads needed to offset glare. The selection and extent of window glazing should vary depending on the criteria required by the window's location, including solar heat gain, energy performance, daylighting, views, and glare factors. Exterior sun controls (including porches, overhangs, trellises, balconies, and shutters) may be integrated into the building's fenestration design to effectively admit and block sun penetration as required.

The incorporation of the following sustainable design and construction principles is either required or strongly encouraged (as noted):

## MECHANICAL SYSTEMS

Designing buildings to reduce the reliance on mechanical intervention for the maintenance of physical comfort levels is required. Utilizing an energy consultant and/or architect to establish the minimum level of energy efficiency that the building and its systems will attain is encouraged to lower long-term energy consumption and costs.

Policy CC-7: A high level of individual occupant control for thermal, ventilation, and lighting systems shall be incorporated. Occupancy sensors and time clock controls shall be incorporated into the building's mechanical design to reduce energy usage.

Policy CC-8: The need for air conditioning may be reduced through effective ventilation design and the use of trees and architectural devices for shading. Such designs can reduce heat absorption and maximize exposure to summer breezes by facilitating internal air circulation and effective shading.

Policy CC-9: Using chloroflourocarbon-free heating, ventilation, air conditioning, and refrigeration base building systems is required. Intakes shall be located and designed to assure maximum levels of indoor air quality. The use of carbon monoxide monitoring sensors is required.

Policy CC-10: Separating ventilation and plumbing systems for those rooms containing contaminants, such as artist studios, from those in the rest of the building is required.

Policy CC-11: Retaining a commissioning agent (a professional qualified to evaluate and certify that a building is designed, constructed, and functions in accordance with the building's specified operational requirements) is required. Owners may choose to have the commissioning agent produce a recommissioning manual for the building to assure it continues to meet established standards such as energy conservation and indoor air quality.

## BUILDING ENVELOPE

Policy CC-12: The building envelope (which defines the conditioned and unconditioned spaces) shall form a continuous insulated barrier and a continuous air barrier. Holes between materials will be sealed with durable caulks, gaskets, and foam sealants.

Policy CC-13: The use of Energy Star or equivalent rated windows is required within standard residential units, and other areas where feasible.

## WASTE MINIMIZATION

Policy CC-14: Efforts to reduce construction waste are encouraged. All building projects within the Plan Area shall recycle or reuse a minimum of 15 percent of unused or leftover building materials.

### INDOOR LIGHTING AND APPLIANCES

Policy CC-15: It is required that all units utilize Energy Star or equivalent rated appliances. This shall include, but is not limited to dishwashers, refrigerators, ceiling fans, washing machines, water heaters, and air conditioning sysyems.

Policy CC-16: It is intended that all buildings utilize natural gas should it become available within the Plan Area. Propane may also be used where feasible, for clothes dryers, cooking stoves, heating, central air furnaces, water heaters, and/or boilers.

Policy CC-17: Using Energy Star or equivalent light fixtures is required. A broad range of choices and styles are available through many lighting manufactures, which can be found at www.energystar.gov.

Policy CC-18: Use of high efficiency bulbs, such as compact fluorescent bulbs or LEDs in recessed can lights, is required.

### WATER EFFICIENT APPLIANCES

Policy CC-19: Utilize water-conserving appliances and plumbing fixtures. The following average flow rates shall be met by installing high-efficiency fixtures and/or fittings:

- Lavatory faucets must be </= 2.0 gpm
- Showers must be </= 2.0 gpm
- Toilets must be </= 1.3 gpf

Policy CC-20: Utilize flow restrictors and/or reduced flow aerators on lavatory, sink, and shower fixtures.

Policy CC-21: Commercial buildings are required to utilize automatic fixture sensors and low-consumption fixtures.

## 7.7 AIR QUALITY

The Plan Area is located within the Mountain Counties Air Basin, which is designated non-attainment for federal 8-hour ozone standards and PM2.5, and State ozone and PM10. The Plan Area is under the jurisdiction of the Placer County Air Pollution Control District, which is responsible for monitoring and regulating air pollutant emissions from mobile, stationary, and indirect sources within the County. The Plan Area shall comply with the regulations of the Placer County Air Pollution Control District.

The Specific Plan includes several features that would minimize project emissions. Vehicle emissions are a primary source of air pollutants. As discussed in Chapter 5, the Specific Plan would reduce reliance on vehicles and the resulting vehicle emissions in several ways. First, the Specific Plan emphasizes pedestrian circulation by providing ample sidewalks and paths between key destinations, particularly between parking and ski operations. The Village is designed to be compact and to provide lodging and related amenities, restaurants, ski facilities,

and other recreational facilities in close proximity to one another so that visitors can park once and access everything they need on foot. In addition, the Specific Plan provides easy access to ski facilities and other amenities by transit, through provision of new transit services as well as a new transit center. These factors will reduce the number of vehicle trips generated by project visitors.

As discussed in more detail in Section 7.6 Climate Change Initiatives, the Specific Plan includes a number of measures that would reduce energy consumption in order to minimize the emissions of greenhouse gases. Most of these measures would also benefit air quality by reducing air pollutants generated by stationary sources (e.g., boilers, HVAC systems) and appliances.

The following policies would further minimize air pollutant emissions:

Policy AQ-1: No wood-burning stoves or fireplaces shall be installed in resort-residential or lodging units.

Policy AQ-2: Outdoor backyard and patio area cooking appliances and grills shall use natural gas or propane.

Policy AQ-3: All plan construction and development shall comply with the Placer County Air Pollution Control District rules and regulations.

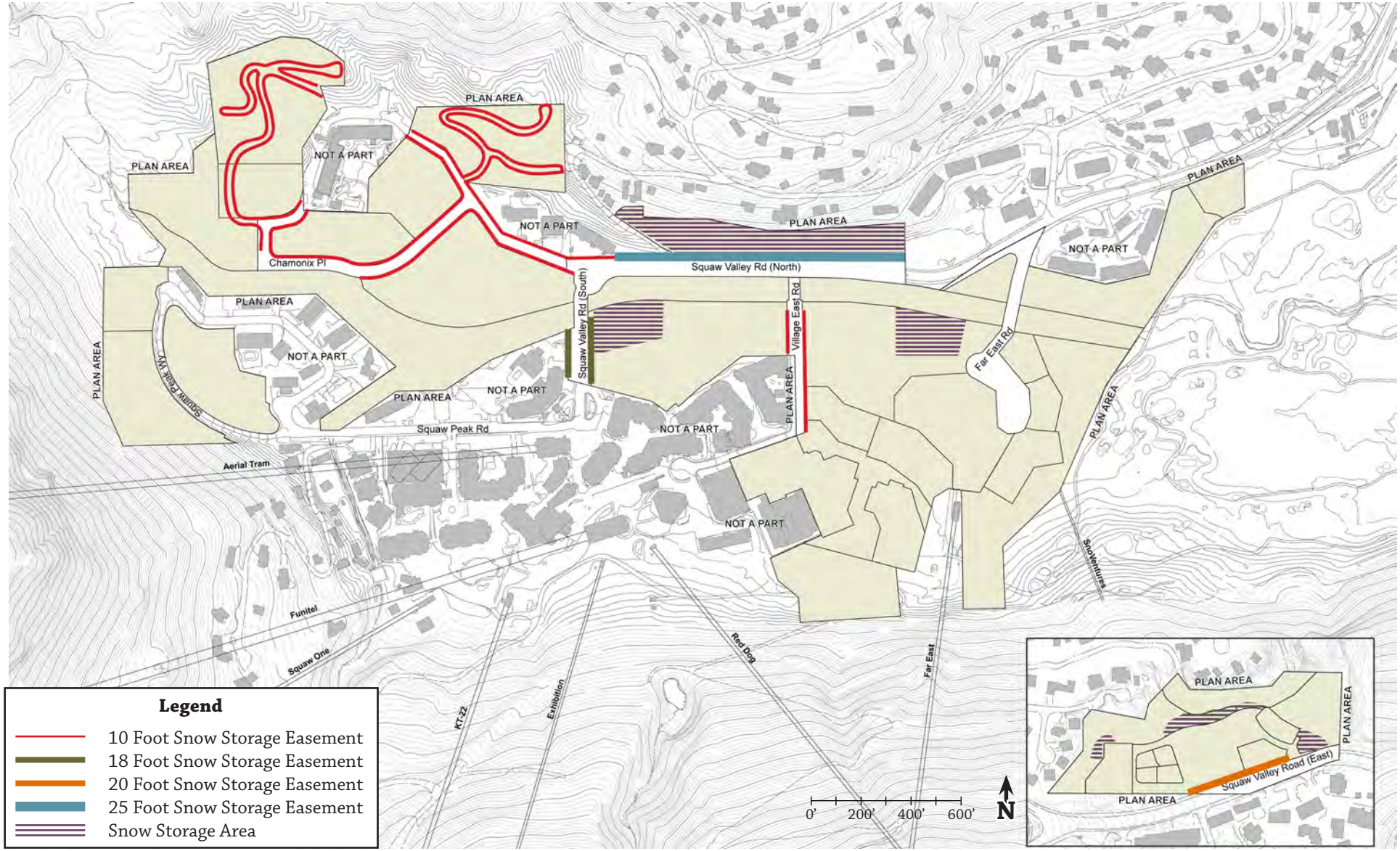
Please also see Section 5.2 Circulation and Parking Goals and Policies.

## 7.8 SNOW STORAGE

The project includes provisions for snow storage to maintain vehicular and pedestrian accessibility within the Plan Area. Areas designated for accessibility include streets, uncovered parking, commercial and resort-residential areas, pedestrian corridors, bikeways, and emergency vehicle access routes. The snow storage plan includes a number of solutions including in situ locations, on-site storage and relocation, natural snow melt, engineered snow melt, and off-hauling (See Figure 7.8).

In situ locations refer to natural areas/open space, rooftops, landscape areas, and areas between buildings/structures that do not require access. Snow melt practices will be used in areas that are determined to require high accessibility per each individual project. Potential on-site storage locations include areas adjacent to roadways, open spaces, between buildings, and other specific designated snow storage areas. Off hauling of snow may be utilized when warranted and is highly dependent upon the snow conditions within any given snow season. Snow may be hauled off to various off-site locations within 20 miles of the project, that properly impose appropriate SWPPP and BMP programs. Snow storage areas will comply with LRWQCB standards such as waddles and silt fences, as necessary.

When the requisite development milestone is reached, snow storage bunkers shall be constructed in conjunction with the parking structures on Lots 11 and 12. The two bunkers, one per lot, will replace existing snow storage areas that will be lost as a result of project development. These two snow storage bunkers shall also be used for snow storage from areas throughout the Plan Area that need to be plowed and cleared. They shall be walled in areas constructed when enough parcels are developed to require the creation of new




## FIGURE 7.7– SNOW STORAGE EASEMENTS

Note: Where adequate space for snow storage is unattainable, an alternative storage location will be identified. The snow storage area north of Squaw Valley Road is only for Squaw Valley Road snow storage. All plans depicted are conceptual based on one possible design of the Project Area and are subject to change.

snow storage areas. Snow will be pushed and plowed into the bunkers from the ground and the top of the parking structures for storage and melting. Sunlight and engineered heating systems will be employed to melt the snow. Water quality and filtration systems shall be used to capture and treat the snow melt runoff. Treated runoff will flow into the drainage network, and once properly filtered will recharge the aquifer or flow into Squaw Creek.

Policy SS-1: Conduct snow storage and removal operations to maintain public safety for vehicular and pedestrian accessibility.

Policy SS-2: Prior to recordation of a final map, a snow storage plan shall be approved, demonstrating that snow storage areas provided are consistent with the requirements outlined in the SVGPLUO.

Policy SS-3: Incorporate elements that ensure snow melt does not degrade water quality in Squaw Creek in compliance with the Lahontan Regional Water Quality Control Board standards and the Basin Plan.

## 7.9 AVALANCHE HAZARDS

The Plan Area is surrounded by steep mountains, and some areas are prone to snow instability and avalanches, particularly during or immediately after heavy precipitation. The General Plan prohibits the placement of buildings or winter parking in high hazard zones and restricts development within potential hazard zones. The County Code requires that new buildings in potential hazard zones (defined as having an occurrence probability of greater than one chance in 100 per year) be constructed to prevent damage from avalanches.

An avalanche path and runout delineation was prepared for the Village and surrounding area, based on analyses of recent and historic aerial photographs, terrain and forest cover, vegetation cover, and weather and climatic conditions; review of large historic avalanche events; and empirical analysis of runout distances. Several potential avalanche paths were identified and are shown in Figures 7.9 and 7.10. Two hazard zones are identified:

- Red (High Hazard): Areas where avalanches that could damage standard wood-frame structures and/or bury automobiles are expected to occur with a probability of one chance in 20 per year or greater.

- Blue (Moderate Hazard): Areas where avalanches that could damage standard wood-frame structures and/or bury automobiles are expected to occur with a probability of less than one chance in 20 per year, but more than one chance in 100 per year.

Within the Plan Area, the High Hazard zone is confined to areas that are proposed to be designated Village-Conservation Preserve or Village-Forest Recreation. No structures would be placed in these areas. The Moderate Hazard zone does extend into or near areas that could be developed in several locations - the Red Dog path in the south, and the Poulsen Gully and Tram Face paths in the east. Any structures in these areas shall be designed and constructed to withstand the 1 in 100 chance avalanche.

The Squaw Valley Ski Patrol regularly monitors avalanche hazards and implements avalanche forecasting and prevention measures on an ongoing basis, such as triggering small slides to reduce excessive buildup of snow. In addition, access to high risk areas can be limited when needed.

The following policies would ensure that people and structures within the Plan Area are not subjected to substantial risk of injury or damage from avalanches:

Policy AH-1: No structures or winter parking areas shall be permitted in High Hazard avalanche areas.

Policy AH-2: All structures constructed in areas identified as subject to a Moderate Hazard shall be designed to withstand avalanches, consistent with the Placer County Code.

Policy AH-3: Outdoor gathering spaces, paths, and trails within the Moderate Hazard zone shall be designed so that access to those areas can be quickly and easily prohibited when there is a high risk of avalanche.

Policy AH-4: Development shall cooperate with the Squaw Valley Ski Patrol as needed to disseminate information about avalanche risks and to limit access to areas that are considered to be of heightened risk of avalanche due to weather conditions.

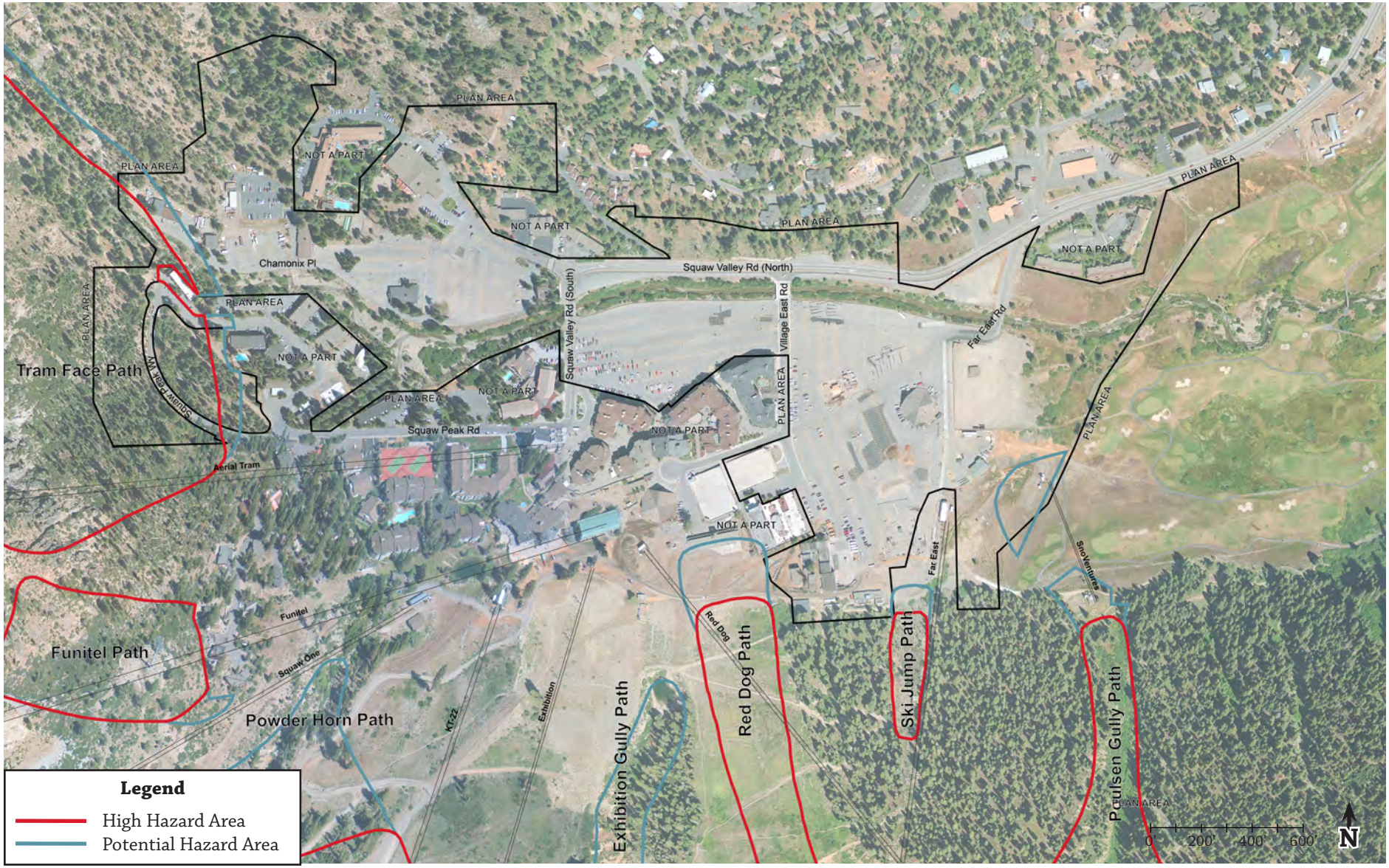
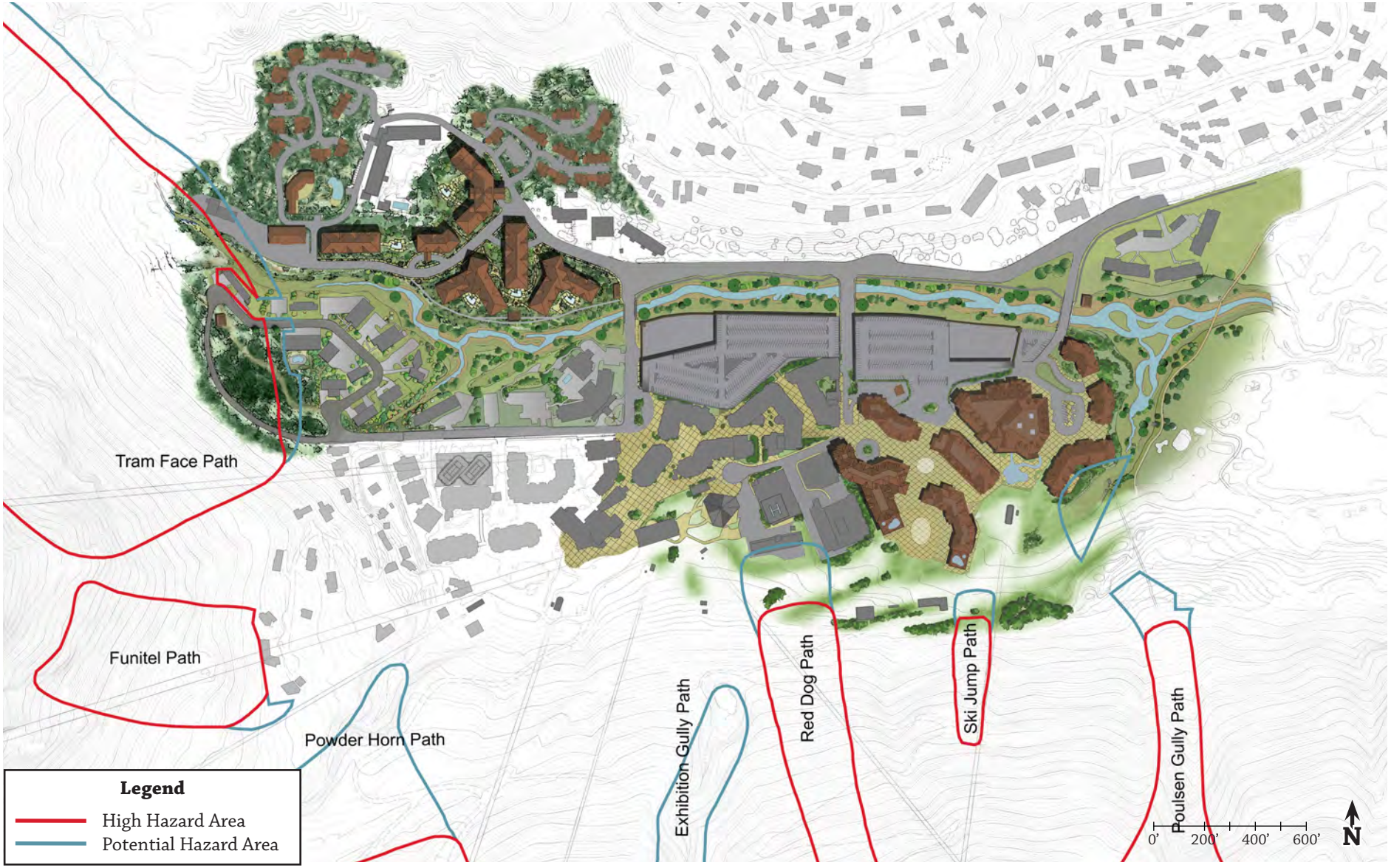



FIGURE 7.8– HIGH AND POTENTIAL AVALANCHE PATHS




## FIGURE 7.9– AVALANCHE PATHS—CONCEPTUAL PLAN

Note: The Illustrative Concept Plan depicts a representative site plan to show the development that could occur based on the zoning and design standards set forth in the Specific Plan. The Specific Plan provides flexibility regarding the placement and design of individual buildings. For this reason, the Illustrative Concept Plan is subject to change.